DOCUMENT RESUME

ED 043 737	VT 011 451
TITLE	Building Institutions to Serve Agriculture. A Summary Report of the CIC-AID Rural Development Research Project.
INSTITUTION	Agency for International Development (Dept. of State), Washington, D.C.
PUB DATE	30 Sep 68
NOTE	232p.
EDRS PRICE	EDRS Price MF-$1.00 HC-$11.70
DESCRIPTORS	*Agricultural Research Projects, *Developing Nations, Developmental Programs, *Educational Development, Educational Programs, Foreign Relations, International Education, *International Programs, Land Grant Universities, Rural Development, *Technical Assistance

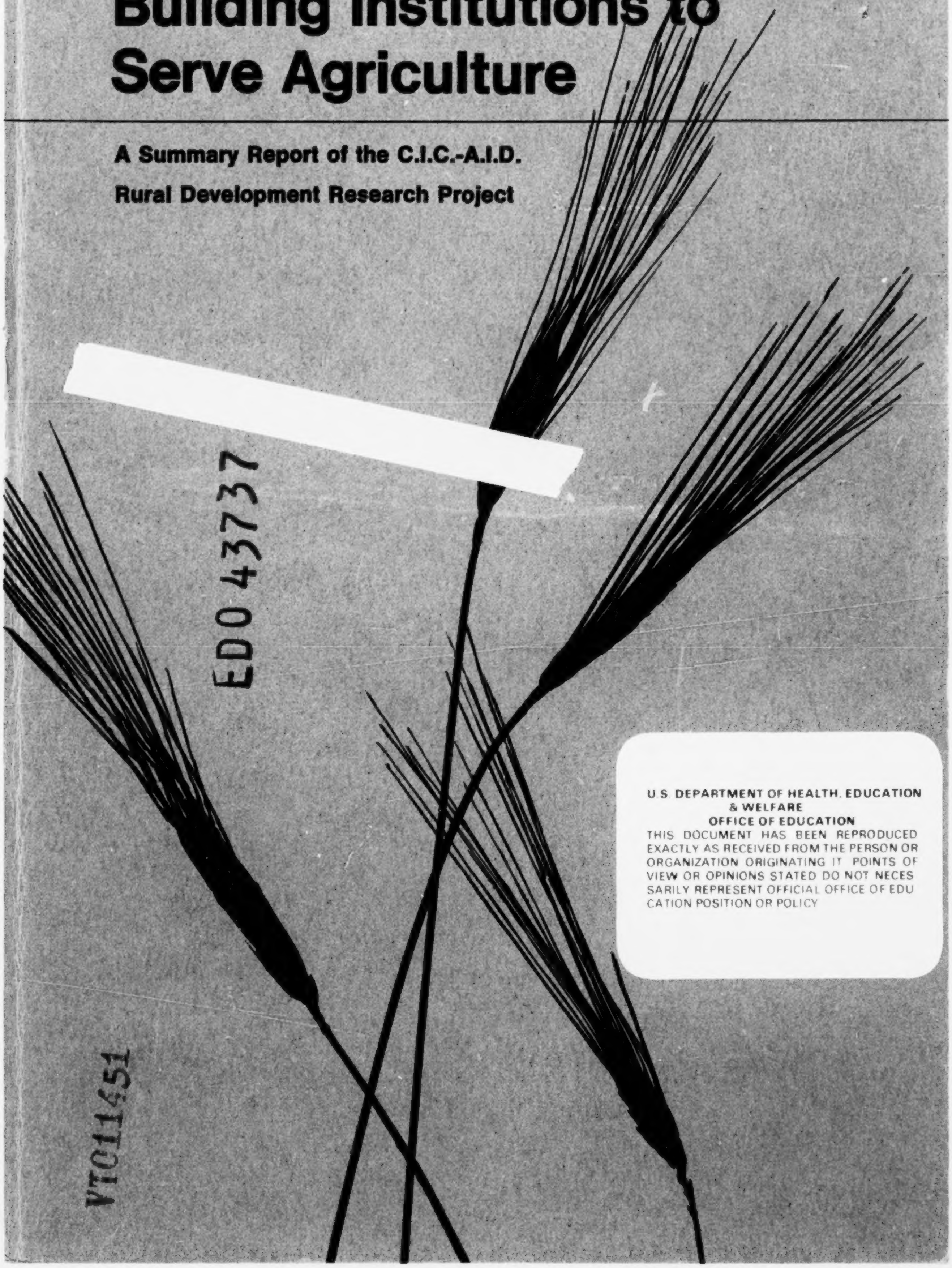
ABSTRACT

To analyze the accomplishments under contracts between the Agency for International Development (AID) and U.S. land grant universities for technical assistance abroad in the development of educational and research institutions in agriculture and related fields, the Committee on Institutional Cooperation (CIC) collected data from the home campus of each U.S. university, AID mission, and host university and country. Although there are wide variations in effectiveness of various projects, the program has made important contributions abroad at comparatively small costs to the United States in money, manpower, and interruption of domestic programs. Recommendations for improving, continuing, and expanding are: (1) make a stronger commitment for building institutions, (2) develop more flexible project agreements, (3) increase research and utilize knowledge on the institution building process, (4) employ basic ideas of land grant type institutions, (5) strengthen goals and commitments, (6) change aspects of technical assistance, (7) change orientation programs, (8) upgrade participant training, (9) develop a fuller public understanding of international technical assistance, and (10) strengthen international capabilities of U.S. universities. A bibliography of research reports developed by the CIC-AID Rural Development Research Project is appended. (GB)

A.I.D.-University Cooperation in Technical Assistance

Building Institutions to Serve Agriculture

A Summary Report of the C.I.C.-A.I.D.
Rural Development Research Project



ED0 43737

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

VT011451

ED043737

Technical Assistance in This Country Is Not New —
We Hope That We have Learned Much Since Colonial Days

REMARKS CONCERNING SAVAGE OF NORTH AMERICA

Pamphlet by Benjamin Franklin, ca. 1784

Franklin wrote: At the treaty of Lancaster, in Pennsylvania, anno 1744, between the Government of Virginia and the Six nations, the commissioners from Virginia acquainted the Indians by a speech, that there was at Williamsburg a college with a fund for educating Indian youth; and that if the chiefs of the Six Nations would send down half a dozen of their sons to that college, the government would take care that they be well provided for, and instructed in all the learning of the white people.

The Indians' spokesman replied:

We know that you highly esteem the kind of learning taught in those colleges, and that the maintenance of our young men, while with you, would be very expensive to you. We are convinced, therefore, that you mean to do us good by your proposal and we thank you heartily.

But you, who are wise, must know that different nations have different conceptions of things; and you will not therefore take it amiss, if our ideas of this kind of education happen not to be the same with yours. We have had some experience of it; several of our young people were formerly brought up at the colleges of the northern provinces; they were instructed in all your sciences; but, when they came back to us, they were bad runners, ignorant of every means of living in the woods, unable to bear either cold or hunger, knew neither how to build a cabin, take a deer, nor kill an enemy, spoke our language imperfectly, were therefore neither fit for hunters, warriors, nor counsellors; they were totally good for nothing.

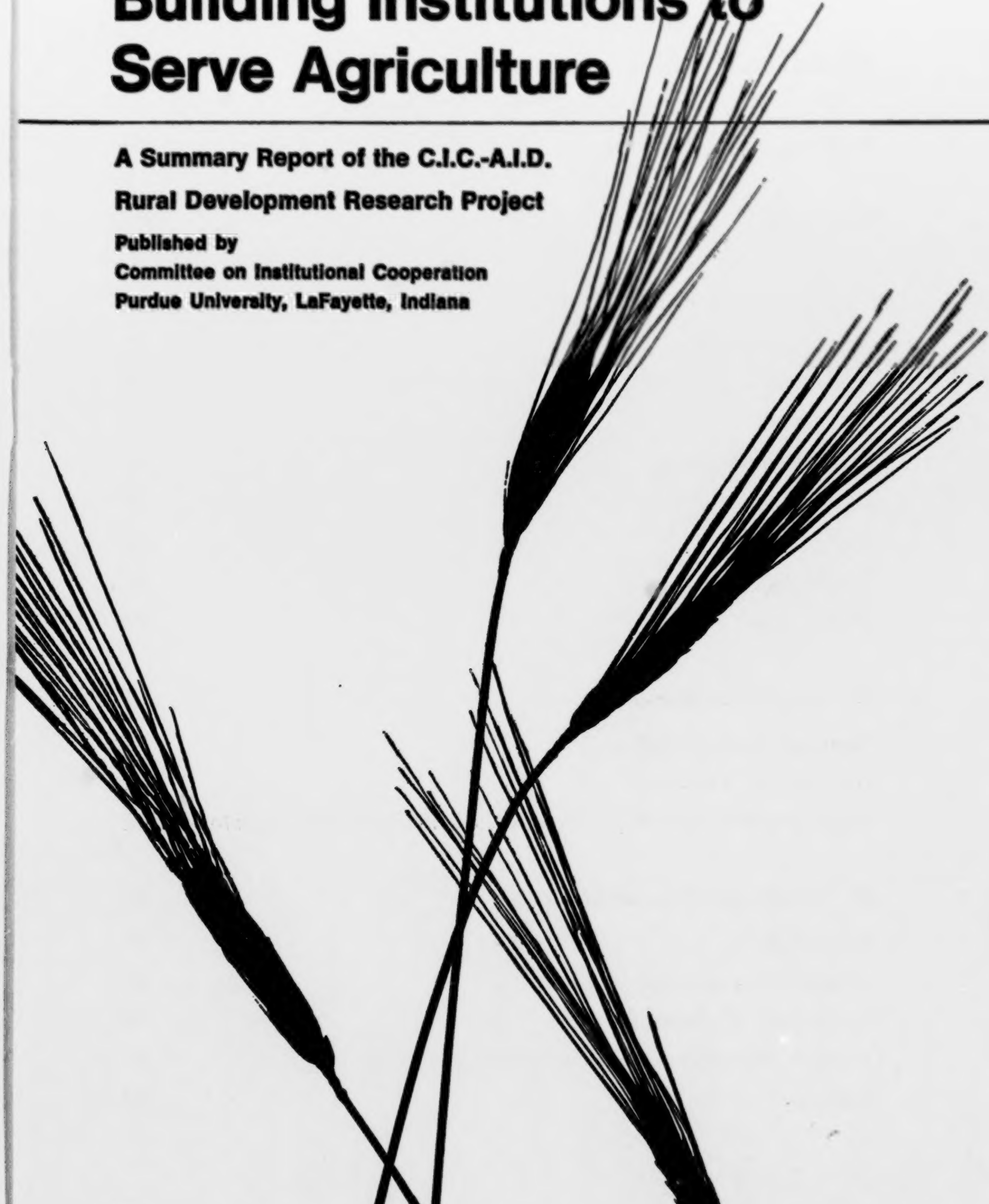
We are however not the less obligated by your kind offer, though we decline accepting it; and, to show our grateful sense of it, if the gentlemen of Virginia will send us a dozen of their sons, we will take care of their education, instruct them in all we know, and make men of them.

A.I.D.-University Cooperation in Technical Assistance

Building Institutions to Serve Agriculture

A Summary Report of the C.I.C.-A.I.D.
Rural Development Research Project

Published by
Committee on Institutional Cooperation
Purdue University, LaFayette, Indiana



Contents

Committee on Institutional Cooperation **viii**

CIC-AID Rural Development Research Project **ix**

Preface **xi**

Foreword **xiii**

I Summary and Recommendations **1**

Recommendations **4**

Assessment of Program Accomplishments **24**

II The Problem **29**

Purpose **31**

Scope **33**

Methodology **36**

Timeliness **37**

III The Background **39**

Planned Social Change **41**

Institution Building **41**

Government-University Cooperation in Technical Assistance **42**

IV Effects on Host Institutions **49**

Introduction **51**

General Assessment of Impact **52**

Indicators of Impact **53**

Factors Associated With Successful Projects **62**

Summary **64**

V Effects on U.S. Universities 67

The Career of the Individual 69

Impacts on University Departments 73

General University Impacts 77

University Commitment and Support of International Work 82

VI Development of the Project 93

Precontract Planning and Review 95

Development of Overall Strategy 105

Measurement of Institutional Progress and Maturity 117

VII Operation of Contract Programs 129

Team Selection and Preparation 131

Field Team and Home Campus Relationships 141

Field Team and Host Country Relationships 150

Individual and Team Operations 162

Team Leader Function 175

Participant Programs 181

VIII Basic Factors Conditioning Success 191

Factors Favoring Successful Operation 193

Factors Serving as Constraints on Successful Operation 199

IX Overall Costs and Accomplishments 219

Costs and Benefits at Home 221

Benefits to the Host Country 224

Effectiveness of U.S. Universities 229

Summary 230

Research Reports from the CIC-AID Rural Development Research Project 231

Committee on Institutional Cooperation

The Committee on Institutional Cooperation (C.I.C.) was established by the presidents of the participating universities in 1958 as a means of expanding opportunities in certain highly specialized areas of instruction, research, and public service. The C.I.C. consists of an administrative officer from each university.

Robert L. Clodius, C.I.C. Chairman, University of Wisconsin
Willard L. Boyd, Jr., University of Iowa
John E. Corbally, Jr., Ohio State University
John W. Hicks, Purdue University
Lyle H. Lanier, University of Illinois
Howard R. Neville, Michigan State University
Leonard K. Olson, University of Chicago
J. Lyndon Shanley, Northwestern University
Joseph L. Sutton, Indiana University
Stanley J. Wenberg, University of Minnesota
Robert L. Williams, University of Michigan

C.I.C.-A.I.D. Rural Development Research Project Advisory Committee

Lyle H. Lanier, Chairman, University of Illinois
John H. Blackmore, University of Minnesota
John T. Caldwell, North Carolina State University
Daryl Chase, Utah State University
Roy M. Kottman, Ohio State University
Arthur T. Mosher, Agricultural Development Council
Ralph Smuckler, Michigan State University
Joseph L. Sutton, Indiana University
Norman J. Volk, Purdue University
John C. Weaver, University of Missouri
Lester R. Brown, International Agricultural Development Service, USDA

Development and Organization of the C.I.C.-A.I.D. Rural Development Research Project

In the spring of 1964, the Agency for International Development (A.I.D.) requested the International Rural Development Subcommittee of the National Association of State Universities and Land Grant Colleges to join with A.I.D. in sponsoring "An Analytical Study of A.I.D. University Contract Projects in Agricultural Education and Research." The purpose of the proposed study was to contribute to the factual and analytical bases for policy, program, and operating decisions concerning such projects. With the provision that the reports of such a study would not contain evaluations of the performance of individuals or institutions, the subcommittee agreed to join A.I.D. in sponsoring the study. The Committee on Institutional Cooperation (C.I.C.) agreed to undertake the study but stated that it wished to enlist the assistance of some universities not members of C.I.C. in the conduct of the study in order to secure participation on a wider basis.

Following a preliminary study to determine scope of work, purpose of study, and operational plan, the Purdue Research Foundation, on behalf of C.I.C., executed a prime contract with A.I.D. for the conduct of the study in June 1965. Subcontracts were then executed with nine universities for various sectors of the study.

University of Wisconsin—Project coordination and direction
  I. L. Baldwin, Director
  Ronald W. Jones,
    Associate Director

University of Minnesota—History of A.I.D.-university relations and literature search

  Principal Investigators
  Richard Blue
  Robert T. Holt
  John M. Richardson, Jr.
  John E. Turner

Purdue and Indiana Universities, cooperatively — Analysis of overseas data

Purdue Principal Investigators
J. H. Atkinson
Bernard Blakely
David Ellsworth
J. K. McDermott
William L. Miller
Harry R. Potter

Purdue Research Assistant
Michael Ledvina

Indiana Principal Investigators
David R. Derge
Donald L. Souder
Indiana Consultant
J. Gus Liebenow

Indiana Research Assistants
Richard Bonnabeau
Allen Hershfield
Neil O. Leighton
E. Hollis Merritt
William Murphy
John Stryker

University of Illinois—Collection and analysis of domestic data

Principal Investigators
George K. Brinegar
Ralph W. Cummings, Jr.
Harold D. Guither
Harold G. Halcrow
Kathleen M. Propp
Earl H. Regnier
William N. Thompson

Research Assistants
Larry J. Martin
Charles D. Powell
Alan R. Thoday

University of Missouri—Latin America Region

Principal Investigators
Melvin G. Blase
Curtis H. Braschler
Harold Breimyer
Robert M. Finley
John H. Longwell
Philip F. Warnken

North Central State University—Near East and South Asia Region

Principal Investigators
C. H. Proctor
J. A. Rigney

Ohio State University—Africa Region

Principal Investigators
T. Scott Sutton
William A. Wayt
Howard C. Williams

Utah State University—Far East and Near East and South Asia Regions

Principal Investigators
B. Austin Haws
R. W. Roskelley
Philip S. Spoerry

Preface

The C.I.C.-A.I.D. Rural Development Research Project has been conducted during the past three years under a contract between the Committee on Institutional Cooperation and the Agency for International Development. The general purpose of the project has been to analyze the accomplishments under contracts between A.I.D. and U.S. land grant universities for technical assistance abroad in the development of educational and research institutions in agriculture and related fields.

The C.I.C. was chosen by A.I.D. to undertake this study for several reasons: (a) because of the magnitude of the task and the sensitive nature of certain aspects of the inquiry, it seemed desirable to assign this responsibility to a cooperating group of institutions rather than to a single university or research agency; (b) the eleven C.I.C. universities could provide a reservoir of expertise probably unmatched by that of any other organization of institutions; (c) this group included land grant universities with extensive experience in providing overseas technical assistance of the type to be studied under the project; (d) the C.I.C. universities also included both private and public institutions without land grant affiliations, and hence not previously involved in any of the overseas projects under investigation. In sum, C.I.C. auspices seemed likely to provide to A.I.D. the strength, experience, and comparative objectivity that would assure satisfactory conduct of the project.

This study of technical assistance in institution building in the developing countries under the Point Four Program and its successors will serve several important purposes. First, the detailed analysis and appraisal of these operations will be highly useful to A.I.D. and U.S. universities as they work towards improving the effectiveness of technical assistance through institution building. Irrespective of periodic fluctuations in political climate and in level of federal support, it seems highly probable that this country will continue to assist the developing nations in their efforts at economic and educational advancement, and the type of assistance under study in this project can justifiably claim high priority as a means to achieving these goals. The results discussed in this volume and in other project publications will provide valuable guidelines for improving the type of technical assistance involved in the cooperative development of educational and research institutions in foreign countries.

Another important contribution of the project is the emphasis upon technical assistance and institution building as general modes of social action deserving interdisciplinary research attention and recognition as significant subjects of graduate study. A direct outgrowth of the identification of these needs has been a week-long conference on institution building held under C.I.C. auspices during August 1968. The conference report recognizes the general importance of the problem and recommends that C.I.C. consider how continuing interinstitutional cooperation in the study of institution building could be conducted. Whatever the C.I.C. universities might decide to do in response to these recommendations, it seems safe to predict that these and other universities will give increasing systematic attention to this problem as a means to improving their capabilities for discharging better an important national responsibility. Support for programs of research and graduate study related to technical assistance and institution building overseas might well be provided by A.I.D. under Section 211d of the Foreign Assistance Act.

In addition to their utility in improving the training of governmental and university personnel for participation in these operations in the developing countries, such programs would significantly complement the education of graduate students in U.S. universities in such fields as international agriculture. The latter requires field research by faculty members and their students in appropriate overseas locations, and wherever feasible it should be linked to A.I.D. (or foundation) technical assistance projects of the type discussed in this volume. The productivity of such laboratories or research stations will undoubtedly be increased by the studies reported in this volume and by other university programs concerned with this general subject.

In behalf of C.I.C. it is a pleasure to acknowledge with deep gratitude the invaluable contributions of the project director and many faculty members of the nine universities participating in the project, and to the members of the Project Advisory Committee, who gave valuable counsel to the research people, particularly during the planning stages of the project.

Lyle H. Lanier
Executive Vice President and Provost
University of Illinois

Foreword

Over the last two decades, many U.S. citizens have acquired experience and developed considerable art in the process of aiding other nations develop institutions for instruction and research both in agriculture and other fields. Some of this experience has been passed on to others, and a few attempts have been made to study objectively the process of giving technical assistance to the developing nations in building institutions to serve agriculture.

Under the sponsorship of the Committee on Institutional Cooperation and supported in large part by A.I.D. funds, some thirty-five senior staff members of nine state universities have been engaged for the past three years in various aspects of a broad study of the factors affecting the success of the A.I.D.-supported university projects with the developing nations in the field of institutional and rural development. The studies reported here were confined to the technical assistance efforts of United States universities in the field of building institutions to serve agriculture; however, many of the findings may be found useful to technical assistance efforts in other fields.

Each of the cooperating universities completed its portion of the study by June 30, 1968. Many of the individual reports have been distributed in type script copy to interested persons, both in the universities and in government. After further revision and editing, most of these reports will receive wider distribution through professional or commercial channels of publication. A list of such publications appears in this volume. Although these reports of the various aspects of the research will receive wide distribution, A.I.D. and the universities recognized the need for a volume which would present in logical arrangement the principal findings of the total research project. We were assigned this task.

This summary report is written for those interested in the overall aspects of the A.I.D.-university projects in technical assistance. The actual or prospective practitioners and administrators of technical assistance projects, both in A.I.D. and the universities, will find it profitable to supplement this presentation with the more detailed and technical papers listed at the end of this report. It represents a condensation of the many original papers which have been prepared on various aspects of our study, plus some material which does not appear elsewhere. Although it is based on the studies of the C.I.C.-A.I.D. Rural Development Research Project, we jointly accept sole responsibility for the selection of the material, the emphasis placed on the items, the form of presentation, and the recommendations.

The ideas of many others have been used in this research project. These are properly acknowledged in the original papers and the several reports of the research project which will be published. Due to the nature of this report, relatively few references are given to documents other than those of the final reports of this research project. Numbers in parentheses refer to the reports listed at the end of the book.

This research project owes much to the many host government and host institution representatives who cooperated wholeheartedly with the different investigators. The same type of excellence cooperation was received from A.I.D. personnel both in Washington and in the field and from U.S. university administrators and faculty members. On behalf of the principal investigators, we extend thanks to all who cooperated in making this study possible.

In addition to the principal investigators on the project, many others in their institutions have contributed significantly to the study. The C.I.C. Advisory Committee was particularly helpful in the development of the specific character of the study. Various A.I.D. officials have given generously of their time and counsel. Messrs. James M. Blume, Douglas D. Caton, Erven J. Long, and Frank W. Parker deserve particular mention.

An advisory committee from the principal investigators has helped the authors of this summary report in presenting the more significant results of the total study to a wide audience.

I. L. Baldwin—University of Wisconsin
J. A. Rigney—North Carolina State University
R. W. Roskelley—Utah State University
W. N. Thompson—University of Illinois

September 30, 1968

Summary and Recommendations

I

This summary chapter contains specific recommendations that follow directly from the most significant facts and general principles which have been identified by the C.I.C.-A.I.D. Rural Development Research Project. They represent the writers' considered judgments as to courses of action which can lead to more effective utilization of the resources allocated to the university contract programs. At the end of the chapter the major results from the past fifteen years of institution building efforts in technical assistance to the developing countries are summarized.

The succinct summaries of the facts and principles which spell out the need for action have been provided as a general canvas against which the recommendations are projected for quick review. A resume of this kind can in no sense be regarded as a substitute for the body of the report which presents documentation and analysis substantiating the findings.

A proposal for change does not necessarily imply condemnation of the past. It does imply a willingness to assess and profit from experience. Scarcely more than a decade and a half has elapsed since the first exploratory efforts in agricultural institution building overseas were initiated. Given the level of knowledge which existed in 1950, U.S. citizens have every reason to be proud of the accomplishments of A.I.D. and their land grant universities. The record of the last eighteen years reveals many frustrations and irritations and some near failures. However, there were enough solidly successful operations to indicate that the objective of transplanting the land grant idea as a stimulus for agricultural development is both worthwhile and feasible, and that our universities can effectively assist the developing countries.

If the record of the past years offers substantial grounds for pride, it offers no basis for complacency. In our judgment, the program has been good enough to justify continuation and expansion, but it has also been poor enough to demand prompt action by A.I.D. and the universities to achieve further improvement. A.I.D. should continue to move in the direction of cooperative partnership with the universities in a flexible, long-term program which is guided by carefully conceived goals, but adaptive to differing human and environmental conditions. The changes in the program which were recommended by the Gardner Report* and the Conference on International Rural

---

* Gardner, John W. A.I.D. and the Universities Report to the Administrator of the Agency for International Development 1964.

Development* and endorsed by A.I.D. officials and the university community have not yet been fully realized. Moreover, evidence gathered by this project indicates that in some areas these important documents did not go far enough in their proposals for remedial action. Our findings also indicate that the universities should realistically reexamine their capabilities to participate in long-term programs of international technical assistance. It is clear that at the departmental level especially, the costs of such participation have often exceeded the benefits.

Finally, and perhaps most important, it is essential that the level of public understanding about technical assistance programs be improved. The educational role which the universities can perform in this area is of crucial importance. Bridging the gap between affluence and starvation is both consistent with the national interest of the United States and an essential and necessary component of national policy. Certainly the U.S. will have technical assistance programs for many years to come, although the form and character may change.

We must strive continually to make these programs more effective, but at the same time they must not be jeopardized by being aimed at unrealistic expectations. We must profit by experience, not only by making our programs more effective but by making our goals and expectations more realistic. It is in this spirit that the recommendations for action which follow are presented.

Recommendations

1. **There should be a stronger commitment on the part of all participating agencies to an expanded and long-term program of building institutions to serve agriculture.**

Agriculture is one of the most crucial sectors in the economic development of the less developed nations. The institutions which provide the technical leadership and services are vital to the change from traditional agriculture to a modern self-sustaining form. Building useful institutions to serve agriculture in the less developed nations, many of which are politically and economically unstable, is a particularly slow process, and must be measured in decades rather than in years. It has been said that our land grant colleges have had a half century of infancy, three decades of adolescence and a quarter century of maturity. It should not be surprising nor discouraging therefore that this process has not been completely telescoped within the five to fifteen years that many of the projects have been in operation. Although the process of institution building can not be completed in a few years, projects can and should be designed so that some tangible results of the technical assistance efforts are achieved early in the life of the project (Chapters IV, V, VIII, and IX).

---

* Proceedings of the Conference on International Rural Development, July 27-28, 1964 jointly sponsored by Agency for International Development, U.S. Department of Agriculture, Association of State Universities and Land Grant Colleges.

This project has studied sixty-eight university contract projects in the less developed countries which have a major concern with agriculture. In most cases they are assisting with the building of institutions for agricultural education and research. Since the start of the Point Four Program this type of technical assistance has aided fewer colleges of agriculture in all of the developing countries than there are land grant colleges of agriculture in the U.S. The population of these developing countries is well over ten times that of the United States, and the area over five times as great as the United States. Many other institutions should be developed to serve agriculture in these countries. The United States cannot give assistance to all who need it, but some expansion of the university contract program in agriculture could be made without great cost or serious disruption of domestic programs. Perhaps some new patterns of assistance could be developed in which the United States would aid the better indigenous institutions in their efforts to assist the weaker institutions of their state or region. The need is great.

The United States has made heavy investments in economic assistance to many of the less developed nations for some two decades. This has been accompanied by technical assistance of various kinds, of which institution building is one. The importance of institutions to the economic, social and political development of a nation and the inherently slow process of institution building will require continued assistance to institution building long after economic assistance has ceased, if the full returns from economic assistance are to be realized.

Our institution building efforts in technical assistance have been beset by several major obstacles that are within our power to change:

First, the long-range nature of institution building requires continuity of policy and leadership if it is to realize an acceptable rate of progress. There has been little continuity through either personal leadership or other means. Short-range planning with the implication that there is little probability of long-range continuity has discouraged staff interest in overseas assignments, discouraged the development of international programs within most university departments, and encouraged overseas crash programs. It has not given the most efficient use of resources. This can be changed.

Secondly, the reluctance of Congress and the public to authorize A.I.D. to make long-range commitments comes in part from the confusion of the relatively low-cost, long-range institution building activities with the shorter-range, more costly economic assistance. The university contract programs of technical assistance over the years have used less than one percent of the total foreign aid funding. Although long-range in character and slow in coming to fruition, technical assistance to the building of institutions to serve agriculture can be expected to pay big dividends on a small investment. There has been little effort by U.S. universities or A.I.D. to inform the public on the value, the long-range nature and the relatively low cost of such programs, and therefore the public does not understand the purpose, nature or cost of the technical assistance institution building aspects of the foreign aid program. There is much evidence that the people of the U.S. strongly favor the continuation of this aspect of foreign aid when they understand it.

The commitment of resources to an expanded and long-term program of assisting the less developed nations build institutions to serve agriculture should not be difficult once there is more general recognition of the values and long-range character of the task.

Recommendations

1.1. The Congressional committees concerned with foreign assistance legislation should, in their deliberations, take cognizance of the fundamental differences between economic assistance and technical assistance to institution building, and they should consider the weight of evidence supporting the need for technical assistance programs which are funded on a long-term basis.

1.2. The administrator of A.I.D. should request authority and funding to place university projects in institution building on a long-term basis.

1.3. When such legislative proposals are initiated, officials of the National Association of State Universities and Land Grant Colleges and other educational associations should initiate action to promote public and Congressional support.

1.4. Officials of A.I.D. and of the universities should initiate programs of action which demonstrate an unequivocal commitment to a long-term program of university involvement in technical assistance.

1.5. A.I.D., with the cooperation of the universities, should expand the old and develop new programs of technical assistance in building additional institutions to serve the agriculture of the less developed countries.

2. More flexible project agreements and improved liaison between A.I.D. and the university community would effect needed improvements in A.I.D.-university relations.

Over the years the universities have experienced more difficulties in working with A.I.D. than with other governmental agencies. Each of the following circumstances has been partially responsible for these difficulties: (a) the service nature of technical assistance, (b) the conduct of operations in a foreign nation thousands of miles from the campus, (c) the failure of the foreign aid program to achieve solid support from the American public, (d) the "buyer-seller" approach by the contract offices with the consequent implication that monitoring the actions of team members was more important than evaluating project achievement, (e) the feeling among A.I.D. personnel that university contracts represented a threat to their job security, and (f) the unwillingness of some U.S. university team members to coordinate their work with other segments of the overall A.I.D. program.

Some of the earlier difficulties were due to the failure of the universities to develop adequate administrative structures to ensure prompt attention to planning and operating problems. Some universities have still not resolved this problem. During recent years the situation has improved materially due to a concerted effort of many A.I.D. and university administrators to develop a solid base for their cooperative endeavors, but great efficiencies of operation could be realized from further progress in this area. The establishment in Washington of the International Programs Office of the National Association of State Universities and Land Grant Colleges to provide liaison between A.I.D. and the universities has been of great help.

From time to time university representatives and A.I.D. officials have discussed the advisability of substituting a grant procedure for the contract approach. For a variety of reasons no attempt has been made by A.I.D. to employ this grant device in technical assistance. Whether a grant system would be preferable to the present contract system will not be known until it is tried. Surely universities have gained sufficient background and experience in technical assistance to justify the experimentation with a grant procedure which would provide for long-range continuity and a high degree of flexibility in operations. The grant type agreement should be designed with the objective of developing a true partnership of U.S. and host country entities in the tasks of building an institution to serve agriculture.

Pending the development of a trial of the grant system, A.I.D. and the universities should take full advantage of the flexibility which can be built into the contract type of agreement.

The regional structure of A.I.D. and the division of responsibilities which are inevitable in a large organization make it difficult for university representatives to know whom they should consult on any specific problem. During an earlier period the administrator of A.I.D. designated one staff officer to serve as his personal representative in a liaison function between the universities and the appropriate offices in A.I.D. The reinstitution of such a liaison person would be most helpful. The current situation of a liaison officer at a lower echelon has been of some value, but he would be more useful if he were administratively associated with the administrator's office where he could help the universities in work across all divisions and bureaus of A.I.D.

Recommendations

2.1. A.I.D., working jointly with representatives of the universities, should initiate a program of grant type of funding for selected agricultural institution building projects on an experimental basis. Such funding should be designed to provide greater flexibility in operation and greater assurance of continuity than do the present contracts.

2.2. Appropriate officials of A.I.D. and officers of the National Association of State Universities and Land Grant Colleges should establish a joint high level committee to work cooperatively in developing the provisions for the above experimental grant type funding for technical assistance projects and to concern itself with the development of improvements in the quality of university technical assistance programs. A particular concern should be the problems encountered in implementing the recommendations presented in this report.

2.3. A.I.D. officials should take steps to designated a special corps of technical and contract officers in whom would be concentrated responsibility for dealing with university representatives regarding technical assistance projects, and who would be especially aware of the unique problems associated with such projects.

2.4. The administrator of A.I.D. should designate someone to serve as his personal representative in a liaison capacity between the various offices of A.I.D. and the university community.

3. Research on the institution building process should be significantly increased and existing knowledge should be utilized more effectively.

Building an effective agricultural institution involves not only erecting and equipping laboratories and libraries, developing a technically competent staff and adopting appropriate rules and regulations. Even more important to its impact on agricultural progress is the development of a sense of institutional dedication to resolving the important problems of agriculture, the evolution of customs and traditions which favor this dedication, and the formation of a staff solidly committed to these goals and purposes. It also involves developing effective working relations with those agencies which provide such inputs as students and funds, those who use such outputs as graduates and research findings, and other agencies which supply complementary services to agriculture and education (see Chapters V, VI, VII, VIII, and IX).

At the start of the U.S. technical assistance effort there were little relevant experience and few analytical studies in this country to guide us. The situation was intensified when technical assistance was focused on the building of institutions to serve the needs of the less developed nations. In the intervening years many studies have been made on technical assistance and a few on institution building. Most of these studies have been restricted, however, to highly specific types of activity or to specific geographical areas. Attempts to develop an adequate theoretical basis for more general use are still limited.

Studies directed specifically to the problem of building agricultural institutions are even more limited. In fact, we have no thorough studies of the factors responsible for the development of the quite different types of land grant colleges which occur in the U.S. The lack of knowledge in these areas has served as a major constraint on successful operation of university contract projects. This research project makes certain contributions both to the theory and practice of technical assistance in institution building, but much more is needed.

Equally serious has been the failure to use the knowledge and skills which are available. Team members have only rarely been selected on the basis of demonstrated skills in institution building at home. Seldom have deans and other university administrators attempted to pass on to the team members their accumulated knowledge, either before departure or during executive visits. In fact, university administrators normally are not well enough informed about the situation in the host country to be helpful in developing team practices and approaches without considerable additional study on their part. The few scholars in the fields of technical assistance and institution building have not yet been discovered as resource persons in orientation programs.

Finally, it is clear that the findings and recommendations of previous analytic studies of institution building under university contract programs have not been sufficiently taken into account in policy making and the development of operational procedure. Increased effort should be directed toward developing more effective cross-fertilization between analytic studies and operational programs.

Recommendations

3.1. A.I.D. and university officials should take cognizance of the inadequate level of knowledge about institution building overseas and the inadequate use of existing knowledge. Joint action should be initiated to direct substantial support to a carefully designed, long-term program of interdisciplinary research on the institution building process and on the problems of translating such knowledge into effective operational policy.

3.2. Pending the results of such research, individuals responsible for the planning, operation, and evaluation of agricultural institution building projects should make every possible effort to use the available skills and knowledge of building institutions to serve agriculture. Better preparation of team members, especially team leaders, and better use of executive visits can be developed.

4. The basic ideas that underlie the land grant type institution are highly relevant in technical assistance projects if properly understood and employed.

Technical information and services are among the prime requisites for moving from a traditional agriculture to modern levels of production. The basic services needed are applied research, extension programs for the farmers and teaching programs soundly rooted in science and scholarship and practically oriented to local problems. These have been the hallmarks of the land grant institutions in the U.S., where they have contributed so effectively to agricultural development. Generally all three functions are administered within a single college or division of agriculture in the U.S. land grant universities. However, in practically every country that is receiving technical assistance the applied research and extension functions are the responsibility of a ministry of agriculture and teaching is done by the university which is typically responsible to a ministry of education (Chapters IV, VI, VII, and IX).

In many of the early technical assistance projects A.I.D. and U.S. university personnel insisted that the three functions be placed under the host university. Although successful in some cases, this practice presents two serious problems. It tends to foment political tension and power struggles between the host institution and host government ministries, thereby weakening rather than enhancing public support. It also tends to cloud the more important principles that have been the real strength of U.S. institutions, namely an institutional goal and purpose of serving the agricultural sector in resolving its major production problems, and an educational and service program that prepares and motivates technical personnel to this same high purpose. Insistence on a U.S. organizational form prior to the development of technical competence and an attitude of service has impaired many technical assistance institution building activities.

U.S. universities have aided many host universities in developing mechanisms to give expression to the land grant ideas and principles without causing political power struggles. Basic research is a typical European university function and shifts from traditional basic research to adaptive research on important agricultural problems rarely cause difficulty with other government agencies. Many mechanisms to enable faculty members to become familiar with agricultural problems and to ensure that the results of applied research are in fact applied have been tried, and some successful mechanisms have been developed in a spirit of harmony. The evidence of this study indicates that the land grant concept is relevant to the underdeveloped countries, but that the development of suitable mechanisms to give expression to this concept requires a willingness to develop new forms of participation in research and extension activities in many countries.

Recommendations

4.1. A.I.D. and university personnel should concentrate on the land grant concept of institutional purpose, orientation and capability directed to resolving the problems of agriculture, but they should be more careful and more politically sensitive in tailoring an administrative organization which will be compatible with local conditions.

4.2. A.I.D. and university personnel should articulate more clearly to host institution leaders and staff the basic principles of the land grant institutions and their implications as institutional goals.

4.3. A.I.D. and university personnel should be much more imaginative and less doctrinaire in assisting host nationals to find an organizational structure for teaching, research and extension that is politically feasible and operationally efficient.

5. Agreement on goals and commitment to an overall strategy by host and U.S. personnel should be strengthened by wider participation in project planning and review.

It is difficult to imagine that the delicate process of technical assistance in institution building which involves so many different entities could be successfully pursued without clear establishment of goals and careful planning of a well conceived overall strategy to which all parties are committed. The major activities which have to be undertaken should be identified, and the order in which they would logically and efficiently occur should be determined. The level and sources of inputs to be committed at the various stages of development and the responsibilities of the host government ministries, the host institutions, A.I.D., and the U.S. university team should be planned and agreed to if there is to be constancy of purpose, direction, and commitment by all parties. The evidence is clear, however, that the technique of using a carefully planned, explicitly articulated strategy has not been used effectively (see Chapters VI and VIII).

All of the agencies who will be involved in the project should share the responsibility for careful and thorough planning. A.I.D. should take primary responsibility for establishing rapport with host government agencies to ensure their early and continued substantive contribution to the project. Much of the broad framework for overall planning should be jointly developed by A.I.D., the host government agencies, and the host institution. Visits by host country officials to the U.S. and to land grant type institutions in other countries can provide a valuable background for project planning and review. U.S. university personnel and representatives of the host institution should sharpen and elaborate on this framework through careful assessment of the institutional setting, detailed specification of the goals to be attained and explicit statement of the means by which these goals are to be accomplished. Better understanding and communication is needed between those charged with the responsibility for planning the project and those who will be responsible for the conduct of operations.

In most of the existing projects the basic plan was developed by relatively few U.S. personnel before and during the precontract survey. Such projects have undergone regular A.I.D. evaluations and audits of compliance, and U.S. team leaders have submitted annual reports and work plans for the coming year. However, few of the projects have undergone a thorough review by a joint team composed of representatives of each of the concerned entities of the U.S. and host country. In many of these projects such a joint review is needed now, in order to identify the goals more clearly and to establish strategies for reaching them.

An effective plan for overall project strategy should include a number of elements which are not presently considered in the planning process. In particular the planning should be guided by a clear idea of the process of institutional growth to maturity and the different types of inputs which are required at different stages of this process.

During the early stages of the project, the plan should provide for sensitively utilizing external inputs to upgrade technical competence and give purposeful orientation to host nationals. Means should be devised to generate early visibility for the institution which would attract public support and generate increased host government commitment of resources. The great need in all less developed countries for research results which can contribute to the transition from traditional agriculture to modern agricultural production and marketing methods suggests a strong early emphasis in the institution building process on solving urgent local agricultural development problems through applied research.

The use of relatively few professionals and strong early emphasis on the participant program often might be the most effective strategy during the early stages of growth. Later, the stronger involvement of U.S. professionals could have a much greater and more efficient impact. As the institution matures, the involvement of a larger proportion of short-term, highly stimulating scientists might be most productive. The technical assistance efforts should evolve into long-term, low-cost exchange programs between the host institution and one or more U.S. institutions.

An essential ingredient of strategy implementation is effective evaluation, leading to periodic revisions to meet changing conditions. Evaluation provides the basis for assessing progress toward major goals and for developing needed revisions of strategy. Each host country and U.S. entity concerned should be involved in evaluation of the progress of the project. Each has interests distinct from the others, but the prime interest of each is common to all, namely, the progress of the project. The U.S. university should take the initiative in arranging for periodic joint evaluation of progress.

The need for more effective planning and evaluation requires concurrent improvements in the procedures for selecting participating U.S. institutions. A.I.D.'s selection procedures have been described as "ad hoc and unsystematic." The results of this research indicate there is need today for rational criteria and procedures to guide the selection process. It is suggested that the National Commission on Accreditation might be able to help A.I.D. find a satisfactory answer to this problem.

Recommendations

5.1. A.I.D. and university officials at the highest levels should take cognizance of the reduced effectiveness of a majority of the institution building activities due to serious deficiencies in initial planning and establishment of goals, and a lack of consensus on broad strategy to be followed in reaching those goals.

5.2. A.I.D. officials who are charged with the responsibility for establishing policy in the area of planning should initiate practices which would greatly strengthen the preproject planning and project review procedures.

5.3. A.I.D. and university officials who are responsible for the planning and operation of projects should devote increased attention to the development and updating of overall strategies for attaining established goals.

5.4. The universities should assume greater initiative in evaluating project performance against overall goals and strategies; however, many aspects of evaluation need joint action by university representatives, host nationals, and A.I.D. personnel.

6. Those aspects of technical assistance programs which have contributed to the highly negative attitudes of many university staff members and department heads should be changed.

Within colleges of agriculture there is a general recognition of the need for participation in international agricultural development. At the same time, there is lack of consensus on the suitability of university contract programs as an effective means for universities to contribute to development of international agriculture. This lack of agreement grows out of the way that these projects have been organized, administered, and funded in the past.

Most universities have clearly received some benefits from participation in A.I.D. contract projects (see Chapter V). Faculty members have gained experience and developed greater interest in and concern for international development problems. Development of new courses and modifications of old ones may be traced to A.I.D. contract experience. Foreign student counseling has been improved. Administrative organization for international work has been improved.

On the other side of the balance sheet are serious questions concerning the effect of the A.I.D. contract programs on the domestic programs of U.S. universities. Staff members who have taken overseas assignments have often been replaced by less experienced, temporary persons such as graduate students, resulting in less effective domestic work. Research programs of participants who are advanced degree candidates have not been supported adequately (see Chapter V). Department administrators have not been adequately involved in program planning and personnel management. Attitudes of many of them towards overseas projects range from indifference to downright hostility, thus greatly aggravating the problems of support and recruitment. Neither A.I.D. nor university administrations have fully realized the scope and seriousness of this problem or taken adequate steps to resolve it.

An equally serious problem is the attitude of many individual faculty members toward overseas participation on A.I.D. projects. These attitudes derive in part from the advisory role often played by the team member, and in part from the fact that many staff members have found an A.I.D. contract assignment to be a disruptive interlude in their professional careers. Universities have frequently failed to draw upon the rich body of experience which returned staff members could bring to the teaching and research activities of their departments. Funds to exploit the growing international interests and experiences have not been forthcoming.

"Assignment to ambiguity" has been an apt description for much of the technical assistance institution building activity of U.S. university professionals in the past. Their vague charge to assist in the building of an institution has not been adequate to suggest what must be accomplished by their physical presence, what activities and approaches are efficient and fruitful, or how these must change as the host institution develops. Often this situation has led to frustration and disillusionment.

Research and the enhancement of professional competence must be an integral part of the life of any serious scientist. Department chairmen should cooperate with team members to ensure that their experiences will contribute as an integral part of departmental programs and to find ways that their overseas tour can add a significant and useful dimension to their professional competence. Personnel policies and practices should encourage professional growth while overseas through such means as graduate students to support research and instruction and participation in meetings of professional societies. In turn, team members should be expected to produce significant professional work during or immediately after their tour which capitalizes on that opportunity.

A.I.D. and university officials should initiate programs to provide support for contract staff members for longer periods both before and after the overseas assignment. Prior support will permit better assignment preparation and integration of the overseas work into the program of the university. Support following the assigment will make it possible for full value to be drawn from the overseas experience. University administrators should not accept technical assistance projects unless effective procedures and policies are established to ensure that participation will make a significant contribution to the primary goals of their institution, including the enrichment of curricula and stimulation of significant research.

Recommendations

6.1. A.I.D. and U.S. university officials should take corrective action in order that technical assistance projects are planned, implemented, and funded so as to eliminate the unfavorable effects on domestic programs of university departments.

6.2. A.I.D. and U.S. university officials should initiate action to improve policies and attitudes so that participation in technical assistance projects contributes to the professional growth and career development of university staff members. Changes are needed in personnel policies and practices before, during, and following overseas assignments.

6.3. U.S. universities should capitalize more fully on the potentials of participation in technical assistance programs as a means of strengthening their education and research programs.

7. There should be fundamental changes in orientation programs in order to prepare team members adequately for their overseas assignments.

The efficiency of team members during their first six months overseas is quite low. Much valuable time is lost and the early contacts with host institution personnel are prejudiced if attention is not given to actions which will hasten the settling-in process. Language barriers, cultural shock and uncertainty of professional role are the major obstacles to be overcome during this period. Orientation programs have been haphazard and inadequate, with one or two outstanding exceptions.

Conversational ability in the language of government and collegiate instruction is essential for a team member to function effectively. In many areas, professional agriculturists should also have some familiarity with the language of the farmer and the tradesman. Although there is general recognition of the need, most team members arrive at the host institution with inadequate training in the language of their new institution. Language training costs time and money, but failure to use the language of the host institution can be extremely expensive.

As the U.S. university departmental programs are broadened to include international programs directly tied to the overseas technical assistance project, adequate attention should be given to the preparation of the prospective team member for the role which he will play in linking the domestic and overseas activities of the department.

It should be possible to more clearly visualize the total task of the team, the role which each team member will be required to perform, and the objectives which he will be expected to achieve. Orientation in this aspect of the team member's responsibility has generally been poor. It can and should be improved at home, and overseas in cases in which a staff member joins other team members already overseas.

In most instances the prospective team member has had little or no training or experience in administration, or in university public relations. As a member of the U.S. university team, such tasks will form an important part of his duties. While there is little explicit theory in these areas, senior administrators of U.S. universities have developed considerable skill and art. Orientation programs on the home campus should draw on these resources.

The theory and the practice of technical assistance and institution building have rarely formed a part of orientation programs, in spite of the fact that this is the primary concern of the team. Although more knowledge in these areas is urgently needed we should make every effort to acquaint the prospective team member with the knowledge which is available. Introduction of the prospective team member to the work of scholars in these fields would be most helpful to those who have not considered previously the problems of technical assistance and institution building.

Most prospective team members will not have served previously in such a capacity and many will never have visited one of the less developed countries. Frequently the cultural shock is great enough to impair the efficiency of the team member for some time after he arrives at the host institution. Probably no orientation program can eliminate the cultural shock but the evidence is clear that good orientation programs are very helpful. In many institutions the haphazard orientation process has failed to take advantage of the knowledge and skill which are locally available in such departments as anthropology and sociology. Nor has full use been made of the experience of the returned team members.

Recommendations

7.1. A.I.D. and university officials at the highest levels should take cognizance of the evidence collected by this project that programs of orientation for team leaders and team members are in need of immediate improvement. New policies should provide for a much longer and more comprehensive transition period.

7.2. Language training before going overseas should be required of all team members and made available to their families where collegiate instruction is not in English.

7.3. Familiarization with the tasks and objectives of the team member should be an integral part of the orientation process, together with the agreed-upon strategies for achieving the objectives.

7.4. The expertise of social scientists and the experience of returned team members should be drawn upon to establish an intensive program of familiarization with host country conditions and customs and with the problems of cultural shock.

7.5. Senior university administrators should draw on their rich store of experience in orienting the team leader to the administrative and quasi-political tasks which he must perform overseas.

7.6. Training in the theory and practice of institution building, the problems of giving technical assistance in other cultures, and the basic principles of the land grant idea should be an integral part of the orientation process.

8. Programs of participant training should be more carefully planned and more adequately supported so that they conform to the developmental needs of host institutions.

The technical competence, professional orientation, and leadership qualities of host institution staff are the most important areas to be influenced by technical assistance. Of the three major inputs made through contracts in institution building — U.S. personnel, participant training, and commodities — many believe that participant training investments will pay the greatest dividends over a long period.

In order to realize full value for these investments, there is need for more deliberate planning of participant training programs to meet the high priority developmental requirements of the host institution. More specifically, the key positions should be identified, and the participant program should be developed with this in mind. The overseas research workers on this project report that many mature host nationals have been unable to accept participant training programs which require absence from home for a year or more because of family considerations. Often these are key individuals, and changes in A.I.D. regulations which would allow such individuals to take their families to the U.S. would add material strength to the participant program.

In many countries, lack of adequate facility with the English language to study in a U.S. university shrinks the reservoir of qualified candidates for the participant program. Efforts should be made to find more effective types of language training in order to widen the base for selection of candidates and to increase the flow of participants early in the institution building process.

The participant who is pursuing graduate study in the U.S. requires special counseling and supervision, particularly if he is to pursue research which is relevant to the urgent needs of his country. Providing adequate faculty supervision and appropriate research facilities present serious problems to many university departments. The costs borne by university departments in training participants have been inadequately recognized in A.I.D. funding and university administration (see Chapter V and (17)).

After completion of training in the U.S., many participants return to find that they have weak financial and administrative support from their host institution. The reasons are many and varied but include such factors as skepticism of U.S. training, jealousy on the part of older administrators, and lack of resources for research facilities and equipment. The immediate postparticipant period should be carefully planned and supported to capitalize on the enthusiasm and technical capability of returned participants.

To date, participant training programs have been more effective in improving the technical competence of junior faculty members of the host institutions than in broadening the outlook and developing the leadership capacity of those who presently control the destiny of the institution. The somewhat restricted concept of participant training should be broadened to give more widespread attention to providing host institution and host government leaders the opportunity to study the experiences of other countries in agricultural research and education. Study should not be limited to the U.S., as there are now excellent examples of educational development in several of the developing countries.

Flexibility and imagination are required to make greater, more rapid impact in improving leadership for agricultural institutions. Every opportunity should be taken to expose participants pursuing degrees to the philosophy, organization, and administration of U.S. educational institutions. Some former participants who have risen to key administrative posts would profit from return visits to the U.S. to study program and institution development and administration. This would add to the earlier program with its emphasis on technical training in a specialized field and encourage closer institutional ties of the U.S. and the foreign institution.

Larger numbers of host institution administrators should participate in such activities as executive training tours, administration intern programs with U.S. universities, and joint team workshops to include administrators of host institutions, host governments, A.I.D., and U.S. university campuses and field teams.

Recommendations

8.1. Officials in A.I.D. and U.S. universities who are responsible for participant training programs should take cognizance of the evidence provided by this project that the selection of participants and the types of training they receive must be more closely fitted to the host institutions' developmental needs. Joint action should be initiated to develop more effective policies and more adequate support for participant training.

8.2. It should be recognized that a substantial number of participants assume administrative and leadership responsibilities within a relatively short time after returning to their home countries. Thus training in leadership and administration should be an integral part of many participant programs, and A.I.D. and the universities should develop cooperatively concentrated post-degree short courses to meet this need.

8.3. Additional support is needed at the departmental level of U.S. institutions in order that curricula, counseling, and research programs can be provided to meet special needs of participants.

8.4. Support should be provided so that a substantial number of participants can conduct their graduate research in their home countries and so that U.S. universities can cooperate more extensively in supervising such research and in holding examinations for graduate degrees overseas.

9. The university community should exert its leadership in developing a fuller public understanding of international technical assistance.

There is a general recognition of the urgent need for agricultural development in most of the less developed countries. For the past several years populations have been growing more rapidly than has the production of food grains. Due to the more widespread use of new improved varieties and of fertilizers and insecticides, several of the developing nations are now greatly increasing food production. This hopeful sign must not be allowed to lull us into a false sense of security. The battle against hunger has not been won. However, the new agricultural developments give hope that mass starvation can be avoided, at least for the next several years, if there is concerted action to continue the improvements which have been started. Continuation of these improvements will require among other things more trained agriculturists, expanded adaptive research programs, and wider dissemination among farmers of the new developments in agricultural production and marketing. These are the objectives of the university contract program in agriculture.

A combination of fiscal and foreign policy problems facing the United States, together with a lack of public understanding of the technical assistance aspects of foreign aid, have eroded public interest in the foreign aid programs of our government while the need is still acute. Those who understand the role which American foreign assistance has played in the agricultural developments now beginning to bear fruit and those who recognize the urgency of uninterrupted continuation of technical assistance in agriculture have a responsibility to share this knowledge with the public.

The U.S. universities have made little effort to inform the general public of the costs and accomplishments of their efforts to assist the less developed nations build institutions to serve agriculture. The costs of the university contract programs in agriculture have been low in terms of both money and manpower. Enough time has now elapsed to enable one to speak with confidence of the values of the program. Although not all projects have shown the same rates of progress, several of the older university contract projects have amply demonstrated both the feasibility and the value of assisting the less developed nations to build land grant type institutions to serve their agriculture. The competence of the universities in this field has been demonstrated.

Where the U.S. universities have objectively informed the public of the importance, accomplishments, and costs of assisting the less developed nations to build institutions to serve their agriculture, the citizens have given approval. Only when it is properly informed can the U.S. public react intelligently, and the universities have a responsibility to keep the public informed.

Recommendations

9.1. Officials of the National Association of State Universities and Land Grant Colleges and other similar organizations should recognize that the public has not been adequately informed regarding the importance, accomplishments, and costs of technical assistance and that the educational responsibilities of the university community in this vital area have not been adequately fulfilled. The U.S. universities individually and cooperatively should expand their programs of public information in this field, otherwise the urgency of this problem will be overlooked in the concern over other domestic and foreign problems.

10. A.I.D. and the universities should cooperate in strengthening the international capabilities of U.S. universities.

The general public is not well informed of the urgent need to strengthen U.S. university capabilities in a broad range of international affairs. There are two closely related aspects of this problem. The first involves enlarging the base and improving the quality of the worldwide phases of resident instruction on the home campus and of public service throughout the state. For the state universities this is a state responsibility. The second aspect is concerned with improving the ability of the U.S. universities to engage in overseas technical assistance activities. This is largely a federal responsibility. Some universities have greater capabilities in these fields than others, but all need further strengthening. One basic need, common to all, is for more knowledge.

Universities have accepted responsibilities for technical assistance activities over the past fifteen years with essentially no effort being made to develop or improve their ability to do so. The universities must assure themselves that future participation in technical assistance also contributes to the strengthening of their own institutions. Research in topics of special relevance to the development process of other nations has been slighted far too much in the past by U.S. institutions and agencies. There is little in the U.S. experience to provide insight and understanding to such problems as the continuing economic and social struggle between a colonial and an indigenous culture. The barriers to transportation, communication, and demographic mobility that plague the developing nations introduce discontinuities and uncertainties into our normal patterns of thought about the economic and social influences which agricultural institutions can exercise. We have little experience with economic systems where there is an excessive supply of unskilled, illiterate labor. There is a minimum of sound and useful research on the biological behavior of plants and animals produced for food in the tropical climates of the world. Therefore university personnel are seriously handicapped in assisting the developing nations with these problems.

Much of the above research can and will be conducted by the developing nations when they have agricultural research institutions staffed by competent personnel. However, a large part of the needed research must be done by U.S. universities and by the international research institutions that are emerging. U.S. universities must participate in this type of research in the future if they are to supply knowledgeable personnel to technical assistance programs. Such research participation not only prepares faculty members for more efficient service in home campus programs and in technical assistance overseas, it also brings research problems into a highly competent research environment where the solutions can be more effectively sought.

By the same token, those universities that expect to use technical assistance to enhance their own capabilities in international understanding both at home and abroad must also find ways to invest some of their own resources in the venture. It is clear that as the economy of the developing nations improves there will be increased volume of business by private firms and this activity should be serviced by the universities. It is the responsibility of the university to bear the costs of improving its ability to teach its own students and to serve its own clientele.

Therefore, involvement in research that is of practical importance to the developing nations is necessary for those universities that participate in technical assistance, and it should be so recognized by A.I.D. A start has been made in providing federal funds to strengthen the capabilities of universities to give technical assistance overseas, but the needs greatly exceed the funds committed to date. Universities must look to state sources of support, however, for providing stronger programs in world affairs to their students and in providing stronger leadership to their citizens.

Recommendations

10.1. Officials in A.I.D. should take cognizance of the need to greatly increase the support for strengthening the technical assistance capability of universities which participate in overseas programs.

10.2. University officials should become more aware of their responsibilities for strengthening the international dimension of their educational programs and should encourage greater state support for this purpose.

Assessment of Project Accomplishment

The primary purpose of the technical assistance activities is to develop indigenous institutions to serve the agricultural sector of the less developed nations, and first attention is given in this section to these accomplishments. The U.S. universities which have participated in this effort also have been affected, and this is summarized in the second part of this section.

Overseas Results

Table 1 shows the duration of the sixty-eight projects included in this research. Measured in terms of changes in these institutions, the technical assistance program has been quite successful in projects which have been operating longer than ten years. About half of the projects which have been in operation that long are regarded as having made very good progress in developing a capability to effectively serve agriculture in their region. Many of these are found in areas of the world where the past few years have shown significant increases in food grain production. They have been responsible for providing in their regions technical personnel, much of the organizational backing, and a good share of the applied research which made that progress possible. They have been helpful in establishing an environment in which modern technology is beginning to replace traditional agriculture. There is every reason to believe that many of them are approaching a degree of maturity and stature which will assure continued growth and improved service.

Table 1.
A.I.D.-University Rural Development Projects
By Regions and Duration, 1951-1966

Region	Duration of Project (years) (10 +)	(5-10)	(1-5)	Total
Africa				
(Active)	1	1	14	16
(Expired)	0	0	0	0
Far East				
(Active)	0	0	0	0
(Expired)	0	5	7	12
Latin America				
(Active)	2	0	14	16
(Expired)	0	4	4	8
Near East, South Asia				
(Active)	11	0	0	11
(Expired)	2	1	2	5
Sub-Totals				
(Active)	14	1	28	43
(Expired)	2	10	13	25
Total	**16**	**11**	**41**	**68**

Thirteen projects were terminated in less than five years and ten others in less than a decade. Certain of the expired projects were discontinued because it was thought that the host university no longer needed U.S. assistance. Others were terminated because it was thought that little was being accomplished by U.S. assistance. A few were terminated because of internal difficulties and still others were discontinued for policy reasons not directly associated with the project. Apparently some of these projects, particularly in the five- to ten-year duration group, were making good progress. However, the evidence from this study shows that, in virtually every instance, the project was terminated before the intended changes had become a vital part of the institution's tradition, and early termination tended to vitiate those gains which were made up to that point. In one case a foundation revived the terminated project and it is moving quite well. The best interests of both the U.S. and the host country might well be served by the establishment of new projects at several of these locations.

About sixty percent of the sixty-eight projects have operated less than five years. Many of the short-duration expired projects were initiated during A.I.D.'s proliferation period (1954-1955), an era characterized by minimum preproject planning and host country preparation and with little care exercised in selecting the U.S. university. The younger active projects are concentrated in Latin America and Africa, and about half of the projects in these regions have received high marks for the start that has been made. However, many of the active projects in this group need a review of goals and strategy by a joint team representing the U.S. university, A.I.D., the host institution, and host government.

An overall assessment of achievement indicates that several institutions with project duration of a decade or more are approaching a stage of maturity and stature which will enable them to make a substantial and continuing contribution to their nation's agricultural revolution. Many other active projects are making good progress but will require more time and continued assistance to mature into self-sustaining effective institutions. Several others have had less success, due in some cases to inadequate host country commitment. Most of the expired projects were terminated before the host institution had attained sufficient maturity to enable continued growth either in the land grant concept or in their capacity to contribute directly to agricultural development. With careful planning, it should be possible to avoid most of the mistakes of the past fifteen years.

Effects on U.S. Universities

Participation in technical assistance overseas has had a significant effect on the U.S. universities even though the involvement has been relatively small. About one thousand faculty members from the thirty-five universities gained significant overseas experience as members of contract teams; eighty percent of these were accompanied by their families. This has provided the universities with much needed world experience and understanding. These staff members were exposed to the processes of building institutions to serve the agriculture of a developing nation as contrasted to their normal scientific and technological concerns, and this experience broadens their usefulness at home.

This increased world experience has resulted in some new courses and some old courses being revised to reflect the new perspective.

Counseling of foreign students has been improved. A substantial number of research activities dealing with such international problems as land tenure, soil fertility and testing in the tropics, weed control in tropical areas, and farm credit for marginal farmers have been initiated. Organizational changes are reflected primarily in the number of directors of international programs in agriculture that have been appointed in the last few years. These administrators are actively engaged in deepening the impact of overseas activities on U.S. university capability and programs. Much, perhaps most, of the new experience, however, remains unexploited by the parent departments.

In spite of the above improvements and innovations, the cost to individual professionals and to departments has been high in terms of delayed professional advancement and disrupted domestic programs. Thus ninety-five percent of the department heads concede that this is an activity in which their departments should participate, but they have little enthusiasm for committing the department further and many capable faculty members are unwilling to participate under existing administrative arrangements.

Therefore, it is clear that participation in overseas projects has had a generally beneficial effect on the university, but present administrative policies and practices in A.I.D. and the universities have generated hostility at the department level which makes it increasingly difficult to attract the most capable staff members to technical assistance work.

The Problem

II

Purpose of the Research

Technical assistance to the developing nations on any large scale is a relatively new experience for the United States. The United States assumed responsibility for the welfare of Puerto Rico and the Philippines at the turn of the century, but our experience in these countries was quite different from that of the last twenty years in the newly independent, less developed nations. Few in the United States or Europe recognized in advance the difference between assuming responsibility for the development of a country and assisting a newly independent people in their efforts to achieve economic, social, and political development.

In the two decades since President Truman's Point Four speech, the United States has given, upon request, technical assistance to most of the non-communist, less developed nations in a wide variety of fields. From the start, the United States has used both direct hire and contract personnel in its technical assistance efforts. U.S. universities, particularly the land grant colleges, have joined with the U.S. Government in these technical assistance efforts from the very early days of the Point Four Program. For the universities, this was an entirely new and uncharted field.

As a major element of its program of assistance to the less developed countries, A.I.D. has actively encouraged the development of institutions for agricultural education and research. A substantial part of this help has been and is being provided through contracts with land grant colleges and universities. Most of the university contract projects in rural development have been directed toward developing agricultural colleges or universities. In several instances, however, U.S. land grant universities have provided other types of technical assistance through contracts with A.I.D. and its predecessor agencies. These have included such activities as helping a ministry of agriculture with its agricultural research and extension program, assisting a U.S. mission staff in its agricultural program, and carrying out rural development research programs.

There are many informed opinions about the factors which influence the effectiveness of such projects. There is little tested evidence, however, as to which factors are the most important or how and to what extent particular factors influence project effectiveness under different circumstances. Many case studies of such university contract projects have been made by independent investigators. Generally speaking, such studies have been either descriptive in nature or specific with respect to location and subject matter. More recently there has been a substantial increase in analytic research on the technical assistance process. However, most of these studies have been focused on relatively narrow aspects of the total process.

From these studies and the observations of experienced technical assistance workers have come a variety of suggestions for improving the technical assistance process. The diversity of the environments in which such projects are carried out and the wide range of types of projects have limited the usefulness of observations based on these experiences. Further complicating the matter is the lack of a systematically derived, broadly based theory of how the technical assistance process operates.

University contract assistance to a foreign agricultural education or research institution is aimed primarily toward increasing that institution's potential for contributing to its country's rural development. This research has sought to analyze factors thought to influence the progress of institutional development in terms of how and to what extent they do in fact affect the building of such potential. The analyses of different aspects have cut across individual projects in search of principles having general significance. Interrelationships among these principles have been examined and their validity tested against actual experience in significant representative situations. This cross-sectional process of analysis is fundamentally different from the case study approach to total-project analysis. In this study, the central emphasis was upon testing hypotheses about particular factors which informed persons believed to be important to university-contract project success.

The general objectives of this research as agreed to by A.I.D. and the C.I.C. were to:

1. Seek to derive, from the systematic analysis of experience with such projects, significant principles which have sufficiently broad applicability to serve as guidelines for program planning, operations, and evaluation.
2. Establish criteria of progress in institutional development which can serve as guidelines for A.I.D., the U.S. university community, and the cooperating countries.
3. Assess what has been accomplished by the overall program for developing agricultural education and research institutions abroad and the cost of such development under varying circumstances — recognizing that such cost and returns measurements can never be reduced to precise dollars and cents.
4. Indicate, to the extent that experience-based data permit, other types of rural development assistance — in addition to building

foreign agricultural colleges and universities — for which the capabilities of U.S. land grant and other universities could be employed advantageously.

A.I.D. and C.I.C. also agreed on certain more specific objectives dealing with various aspects of:

1. Project effects on host institutions.
2. Factors influencing the types of institutions best suited to a country's needs.
3. Factors influencing the effectiveness of the university contract device for conveying technical assistance.
4. Effect on U.S. institutions participating in international rural development assistance.

Each of the general and specific objectives has been covered to some extent in our study and certain findings will be presented dealing with each. However, as the study progressed, it became apparent that not all aspects of the study could be followed in equal depth. The exciting nature of some of the preliminary findings and the ease of securing comparable data combined to determine the areas of emphasis in our study.

This project did not have as an objective the evaluation of the performance of individual projects or institutions. However, the attempt to determine the significance of various factors called for an examination of project performance. Such individual project evaluations will not be identified in this study. The effects of pertinent factors and their interrelationships have been analyzed in a search for significant principles. The findings consist of the identification of certain principles which seem to have wide applicability and are based on a considerable body of evidence. The recommendations can only represent the best judgments of appropriate courses of action in the light of the findings and in the context of the present world environment.

Scope

A.I.D. made the basic assumption that the development of appropriate indigenous institutions for agricultural instruction, research and public services would, over time, contribute significantly to the rural development of the less developed countries, and the planners of this study did not analyze the truth or falsity of this basic assumption. The studies were confined to factors affecting the effectiveness of the university contract type of technical assistance in building institutions for education and research in agriculture with a potential of aiding the rural development of the less developed nations.

All projects which could be identified as being primarily agricultural, whether active or expired, were studied to some extent but in varying degrees of detail. Inquiry into related activities outside this central core of projects was considered only to the extent that selective analysis of them promised to add significantly to the primary purpose of the study. Particular cases in point are the limited coverage of university contract projects in agriculture which are financed by foundations or by other nations or multilateral agencies.

Limitations of time and manpower forced the restriction of this study to the activities of U.S. agencies, institutions, and personnel. Although similar studies of the host national government agencies, institutions, and personnel are needed, there were advantages in first studying the activities of the donor government, institutions, and personnel. To have attempted to cover the activities in detail of both the donors and recipients would have unduly complicated this study.

Sixty-eight A.I.D.-university projects, active and expired, were identified as useful units for this study. What constituted an appropriate project for study does not correspond to the A.I.D. classification of agricultural projects. A number of projects with broader objectives were included because they had an important agricultural component.

Both active and expired projects were included. However, not all received equal attention in all aspects of our study. An attempt was made to identify the best sources of data for each aspect of the study. Generally less attention was given to expired and relatively new projects than to active projects with several years of experience. However, some of the expired projects were the best sources of data on such topics as the residual effect on the host institutions and the methods followed in closing a contractual arrangement. Certain relatively new contracts served as best sources of data in the studies on precontract planning.

The sixty-eight contracts selected for study had highly diverse environments and objectives. See Table 2.

Each project was located in an enviroment different from every other project, and each project changed during the course of the study. Frequently significant changes occurred in as little as a year. Personnel or policy changes either by the United States or by the host country often had significant impact on a newly developing institution.

Table 2.

A.I.D.-University Rural Development Projects by Type of Development Objectives and Region, 1951-1966

		Region			
Project Development Objectives	**Total**	**Africa**	**Far East**	**Latin America**	**Near East-South Asia**
		(Number of projects)			
Degree institution	40	5	11	12	12
Degree institution; technical agricultural training; primary school	1	1	—	—	—
Degree institution and ministry research and/or extension	4	—	—	3	1
Degree institution; ministry research and/or extension; action program*	1	—	—	1	—
Degree institution; ministry research and/or extension; and secondary agricultural training	3	1	—	1	1
Ministry secondary and/or technical agricultural training	6	5	1	—	—
Ministry research and/or extension	6	1	—	3	2
Ministry research and/or extension and secondary and/or technical agricultural training	4	3	—	1	—
Ministry action program	2	—	—	2	—
Ministry action and research and extension program	1	—	—	1	—
Total	**68**	**16**	**12**	**24**	**16**

---

* "Action" program has a goal of immediate increase in agricultural production.

Methodology

By looking only at differences, one could easily be tempted to conclude that every project is unique and technical assistance is doomed to remain essentially an individually practiced art. Such a conclusion, however, would be no more realistic — nor helpful — than is the oft followed practice of disregarding project differences in proposing generalized remedies. Fashioning tools for identifying those common elements of A.I.D. university contract projects which help to explain their behavior and the way in which significant variables interact under differing local conditions was the challenge and primary mission of this research.

There was little previous experience with similar broadly gauged research programs to guide the principal investigators in determining appropriate methods for the study. There was no generally agreed upon theoretical base of technical assistance in institution building around which an analytical study might be based. Consequently, development of the theory and a pragmatic approach to the collection and analysis of data were necessary. However, in the early development of the study, a basic decision was made to rely considerably on the testing of logically derived hypotheses by cross-sectional analysis of data secured from as broad a base as was feasible but with emphasis on what seemed to be the best sources of data on each topic under consideration.

Certain basic data were collected from the home campus of the U.S. university, the A.I.D. mission, and the host university and country. These included the pertinent documents on each project, such as the contract and amendments to it, the precontract survey, the annual project reports, the end-of-tour reports and, in the case of expired contracts, the terminal report. From these documents and from other inquiries, objective data on U.S. university team members, participants, executive visitors, etc., were assembled and analyzed. In a similar manner, as much data as could be readily secured were assembled on a variety of factors relating to the host country environment.

U.S. university files were searched by a local individual acting for and under the direction of the research project. Some data both at home and abroad were secured through questionnaires. For the critical testing of hypotheses, principal reliance was placed on either structured or unstructured interviews.

Each U.S. university home campus and each participating host country agency, with a few exceptions, was visited at least once by one of the principal investigators. In the host countries, two or more visits were made, frequently involving two or more of the principal investigators. Fifteen different individuals participated in the host country visits.

Both at home and abroad every effort was made to secure facts and opinions from all who were in a position to help, either because of their participation in the project or because of their opportunity to observe its operation.

Throughout the life of the project, all of the principal investigators have felt the need for the development of an adequate theoretical base on which analytical studies of technical assistance and institution building might be based. Although a start has been made in recent years on the conceptualization of technical assistance and institution building, much still remains to be done. Certain contributions to theory are presented as a part of the findings of this study.

Nine U.S. universities have been actively involved in this research project with some thirty-five senior staff persons actively engaged in the study for part or all of the three years. Each institution and each principal investigator carried specific responsibilities in the planning and execution of the study, but all contributed to all phases of the study in greater or lesser degree and joined in the development of a planned, coordinated single study.

Timeliness

This report is appearing at a time when there is more concern over the world food crisis and more general recognition of the need for technical assistance to the developing nations than was present at the time the research was started. This coincides with a general recognition of the significance of manpower training, institution building, and adaptive research in the rural development of the underdeveloped countries. At the same time, the United States is now faced with a combination of foreign policy and fiscal policy problems which are resulting in reduced appropriations for foreign assistance.

This research dealt with only one small segment (in terms of expenditures) of the total foreign assistance program of the U.S., namely the A.I.D. university contract program of assisting the less developed nations build institutions to serve agriculture. An assessment of the overall results and costs of the university contract program in agriculture was made, and various factors controlling the effectiveness of planning and operating such programs were evaluated.

The recommendations arising from the findings of this research are designed to make possible more intelligent choices of where to use university contracts in technical assistance, of the type of university contract to be executed, and how the effectiveness of technical assistance in the field of institution building can be improved.

The Background

III

A knowledge of the past is essential to an appreciation of the present. As we look at the past, three areas of endeavor are of major importance to an understanding of the university contract operations in technical assistance.

1. What is known about the theory and practice of planned social change and the role of technical assistance?
2. What is known about the theory and practice of institution building in the field of higher education?
3. How have the past policies and practices of the U.S. government agencies and U.S. universities concerned with foreign assistance affected the operation of the university contract program of technical assistance?

Planned Social Change

For the past twenty years many U.S. universities have been intimately associated with A.I.D. and its predecessor agencies in attempting to aid the developing nations in bringing about planned social change. In our own country, the land grant colleges of agriculture early accepted the responsibility of assisting rural people in their attempts to improve agriculture and rural life. The early success of these efforts in agriculture encouraged similar activities by other units of the American state and private universities.

In recent years, these attempts by government agencies, universities, business interests, and private foundations to bring about planned social change have been both superficially categorized and seriously studied by the casual observer and by the serious student.

The University of Minnesota, as part of its responsibility to this research project, prepared a three-volume annotated bibliography of books, reports, and articles dealing with planned social change. The preliminary sifting and winnowing involved in the annotations and in the preparation of a proposition list index by Dr. Robert T. Holt and his associates (4) was of great help to the other research workers on our project. Copies of this have been placed in the libraries of the principal universities of the U.S. and limited distribution has been made to individuals in the universities and in A.I.D.

Institution Building

Most of the university contracts in the field of rural development are concerned with assistance to the developing nations in the building of institutions for agricultural education and research. Until very recently, there has been little serious study of the theory and practice of building institutions for higher education, either in the U.S. or in other countries. Within our land grant colleges, many individuals have learned much about the building of agricultural colleges, experiment stations, and extension services, but little serious study has been given to the differences among these institutions and the forces responsible for the development of such patterns. Currently, there are under way several studies on institution building. In our own research project, both the theory and practice of institution building have been items of concern, and various aspects of the subject will be covered in other sections of this report.

Government-University Cooperation in Technical Assistance

Before the Point Four Programs

The Inaugural Address of President Truman in 1949, in which he recommended, as Point Four among others, a program of technical assistance by the U.S. to the developing nations, is generally regarded as the start of technical assistance. Actually, the U.S. has been concerned with technical assistance from the time that the first settlers arrived on our shores with the intent of establishing a European culture. From that time until the early years of this century, the balance of the flow of technical assistance was from Europe to our people. For some three centuries, Europe provided much of the higher education for our leaders in government, business, industry, transportation, and education, in part by emigration to the U.S. of educated Europeans and in part by our citizens going to Europe for completion of their education. In like manner, the balance of the flow of knowledge resulting from research and scholarship was from Europe to our country. American colleges and universities owe much of their present standing in the world community of higher education to the impetus to their growth which came from the massive flow of technical assistance from Europe to the U.S. over three centuries.

Now the balance of flow is from the U.S. to other areas of the world. U.S. universities and colleges have given technical assistance to other countries in two ways. First is the enrollment of foreign students in our institutions. This must have started very early in our history, but was of minor significance until after World War I. During the twenties and thirties, foreign students in our colleges and universities were predominately undergraduates. After World War II, the number of foreign students in our colleges and universities rose rapidly and the majority are now enrolled as graduate or professional students. The second type of technical assistance to other nations involves the loan of staff members to other countries. On an individual basis and on a small scale, this practice is very old. Several programs involving the institutions unofficially or officially were started long before the Point Four Program. The oldest of these was started in 1876 when the president of Massachusetts Agricultural College spent a year at Hokkaido University Agricultural College at Sapporo, Japan. Another early example of some significance is the Cornell in China program. Several other informal arrangements between an American university and one in a developing country were established before the Point Four proposal.

There were also limited government-to-government programs. The Institute of Inter-American Affairs was established in 1940 by authority of the Pittman Act. The primary focus of the program was on technical assistance in agriculture, public health and education. Operations were largely confined to the development of service institutions—*servicios*—jointly managed by U.S. and host country employees. The Office of Foreign Agricultural Relations of the USDA had developed a very small program of technical assistance to which additions were made under the Smith-Mundt Act in 1948.

The Marshall Plan for European recovery, which found expression in the Economic Cooperation Administration, was preeminently a program of economic aid although there was some technical assistance with many participants coming to this country.

The Point Four and Successor Programs

The Point Four Program officially began in 1950 with an executive order establishing the Technical Cooperation Administration within the Department of State. In 1951, Congress established the Mutual Security Agency which absorbed the functions of the Economic Cooperation Administration. The new agency was also assigned the responsibility for technical and military assistance in those less developed areas of the world which had strategic significance. Technical assistance to the remaining underdeveloped areas was left the responsibility of the T.C.A.

Shortly after President Truman outlined the Point Four Program in his Inaugural Address, President John Hannah of Michigan State University, who was also then president of the Association of Land Grant Colleges, wrote to President Truman offering the cooperation of these institutions in the new endeavor of the U.S. Government. This offer was accepted by those responsible for the new programs. By the end of 1952, eight different U.S. universities had accepted technical assistance responsibilities from one of the government agencies. These projects were all concerned with agricultural and rural development. They were:

Arizona, University of — Iraq
Arkansas, University of — Panama
Cornell University — Philippines
Illinois, University of — India
Michigan State University — Colombia
Oklahoma State University — Ethiopia
Purdue University — Brazil
Utah State University — Iran

This was essentially a new experience for both the U.S. Government and universities. There was little previous experience to guide them and the programs were acknowledged to be experimental. Both land grant colleges and government administrators believed that the land grant college idea was relevant to the problems of the less developed areas of the world. The early program effort was deliberately limited in size, flexible in character, and restricted to those fields in which the land grant idea was thought to be particularly applicable.

Rapidly changing social, economic and political conditions, at home and abroad, coupled with the lack of a firm base of experience in technical assistance, resulted in a series of rapid changes in policies, personnel, and organizational structure. These changes had their impacts on the universities as well as on the governmental agencies.

John M. Richardson, Jr., of the University of Minnesota (12), as part of that institution's responsibilities in this research project, prepared an interpretive "Analysis of A.I.D.-University Relations, 1950-1965, With Special Reference to Rural Development Contracts." He has divided this time span into six different periods and given the following capsule descriptions:

> (1) *Genesis* (January 1949 - Summer 1953). During this period, the university contract program was conceived and the first projects were initiated. A number of government agencies were associated with project administration: the Technical Cooperation Administration (TCA), Economic Cooperation Administration (ECA), Mutual Security Agency (MSA), Institute of Inter-American Affairs (IIAA), and the Office of Foreign Agricultural Relations (OFAR) of the Department of Agriculture (USDA). Projects were exclusively oriented toward agricultural and rural development. The program was experimental in nature and extremely limited in scope.
>
> (2) *Proliferation* (Summer 1953 - July 1955). The period of proliferation coincides with the tour of Harold E. Stassen as administrator of foreign assistance. During this period, responsibility for the

administration of foreign assistance was consolidated under a single agency, the Foreign Operations Administration (FOA). The university contract program expanded rapidly, due largely to Stassen's policies.

(3) *Retrenchment* (July 1955-September 1957). The period of retrenchment gets its name from the philosophy and policies of John B. Hollister, who served as director of the reorganized agency, now called the International Cooperation Administration. Between July 1955 and September 1957 the expansion of university participation was halted as Director Hollister attempted to cut back the foreign assistance program and establish more uniform financial, legal, and administrative procedures. There was a major deterioration in agency-university relations.

(4) *Inertia* (September 1957-Summer 1961). During this period, there were four administrators, but no major organizational or policy changes in the agency. Numerous conferences were held between high ranking agency and university officials concerning the university contract program. However, there was little discernible improvement in agency-university relations at the level of the participating universities.

(5) *Interregnum* (Summer 1961-December 1962). We also considered calling this the period of confusion. The arrival of the "New Frontier" in Washington resulted in major organizational and personnel changes in the agency. The short-term consequences of these changes for agency-university relations were, to quote one observer, "chaotic."

(6) *Harmony* (December 1962-?). The appointment of David Bell as administrator of A.I.D. marked the beginning of a period of harmony in agency-university relations. During Bell's tenure, university participation was expanded and diversified. A major study and conference focusing on the university contract program increased mutual understanding between agency and university representatives. The most salient characteristic of this period, however, was the administrative style of Mr. Bell himself. Although we concluded our history in the spring of 1965, the period of harmony does not, as yet, appear to have come to an end.

From the early days of the foreign aid programs to the present, certain basic issues have been subjects of controversy. Three of these are of direct concern to the university contract program:

1. To what extent should the United States foreign assistance program be considered as a long-range continuing program and to what extent should it be considered only on a short-term basis? In other words, how rapidly can "we work ourselves out of a job?" The prevailing viewpoint on this issue determines to a considerable extent the size and character of the technical assistance program.
2. To what extent should the technical assistance programs concentrate on building indigenous institutions which will in time

serve the host country? Institution building is a slow process and investments here cannot be expected to pay quick dividends.

3. To what extent should universities and other non-governmental organizations be used in planning and operating technical assistance projects? And how much flexibility should such contractors have in attaining the broad objectives of the project?

The ebb and flow of the majority opinion on these and other issues have resulted in constant turmoil, reorganization, and redirection of the U.S. foreign aid program. Inevitably, these shifts have affected the relations between the government agencies and the universities. Generally, universities have had poorer relations with the foreign aid agencies of government than with other government agencies. There are many factors responsible for this situation, several of which are of major significance.

Both the government agencies and the universities started to explore uncharted waters with their technical assistance programs. Ignorance was bliss at the start of the program. Later the human tendency to blame someone other than oneself characterized many projects. More recently, A.I.D.-university relations are improved. To some extent this is due to personalities and to some extent to the accommodations which came with experience.

The fact that the technical assistance activities of the universities are conducted far from the home campus and in a foreign land adds many complications to the difficulties which are inherent in the teaming together of a governmental operating agency and a university. Few universities, prior to 1950, had any experience operating programs, either teaching or research, in a foreign land.

Undoubtedly a key factor in the generally poor relations between the foreign aid agencies and the universities has been the frequent shifts in policies, organization, and direction of the foreign assistance programs. Shifts of emphasis in the foreign aid program downgrading the role of universities in technical assistance have been a particularly unsettling factor.

Not only has government opinion regarding the proper role of universities in technical assistance shifted from time to time but also the universities' evaluation of their own role in technical assistance has changed with time. The original skepticism of many universities about participating in direct technical assistance overseas has been allayed. There has been a growing sense of responsibility on the part of universities, and changes in university organization have facilitated university performance in overseas operations.

The maturing of university and A.I.D. ideas with respect to the role of universities in technical assistance makes somewhat easier and smoother the relations between the two. However, until fundamental decisions have been reached by the United States, on what promises to be a continuing basis, on the role and nature of the U.S. assistance program to developing nations, we cannot expect to find stability and smooth operation between U.S. universities and A.I.D.

The United States universities carry a large measure of responsibility for wise leadership in aiding the nation to reach a consensus as to the size and character of a foreign aid program which will be consistent with, and responsive to, the needs of our nation and the world.

Effects on Host Institutions

IV

Introduction

This chapter assesses the impact that technical assistance projects have had upon host universities and, to a lesser extent, upon other institutions of the host country. No effort is made here to account for all of the activities that may have had an impact; rather, attention is given to those institution building activities where sufficient evidence to enable evaluation was available.

As reported earlier, U.S. universities participated in a total of sixty-eight projects abroad. When this research started, some of these had expired. Others were still relatively new, having been in operation less than two years, and many were with ministries or bureaus of the government that were not degree-granting institutions (see Chapters I and IX).

The major part of the material presented below is based upon an intensive analysis of twenty-five projects which represented seventy-five percent of the active projects of a university-to-university type (9). The very new projects, many of the expired projects, and those concerned with non-academic programs are not included in this analysis because of the lack of comparative data. The expired projects provide some evidence of problems that led to early or premature project cancellation, and these are referred to at the end of the chapter.

The general task of the U.S. universities in institution building activities abroad is typified in the following excerpt from a university contract:

> The Contractor shall provide assistance to the (state) and the (university) to:
>
> 1. Further the integration of teaching, research, and extension in the pattern of the United States Land Grant College system; strengthen research and extension to serve the agricultural needs of the (state) and other nearby areas and build the professional competence of agricultural specialists.
> 2. Strengthen existing programs at (university) and with the State and to develop new programs of a more fundamental nature in the general field of agriculture and veterinary medicine.
> 3. Develop at (university) a graduate program in Agriculture and the Rural Social Sciences leading to a degree similar to the Master's Degree in the United States. This program will be a means of improving the qualifications of college professors, researchers, and other technical personnel.
> 4. Assist the (university) in a program of increasing the number of undergraduate and graduate students enrolling annually from

(state) and other areas in courses initiated in (date).

5. Strengthen the qualifications of the agricultural profession and provide training in the United States or elsewhere outside (country) for (country's) professors and specialists from (state) and other states.
6. Assist in the planning and development of the new . . . agricultural experiment farm to be used for education and research as an integral part of the (university).
7. Assist the (university) in undertaking economic research to guide State and Federal Agencies and cooperatives, farmers, and other private enterprises in (state) and neighboring states.
8. Cooperate with the staff of the (university) in providing information and advisory assistance to private and public agencies in developing and carrying out effective economic development programs to increase agricultural production and improve processing and marketing practices.

In brief, the staff of the new institution was to achieve a high level of technical competence and performance in the fields of teaching and research. This performance was to be on problems vital to the economic development of the country. In addition, the institution was to become a working partner with other segments of society in helping resolve practical problems.

The U.S. university was charged with the responsibility of developing within the host institution the basic attributes and characteristics of the land grant model in the U.S. Seven aspects of institution building as classified by several writers are (a) attitude and commitment, (b) organizational structure, (c) program, (d) physical facilities, (e) integration within society, (f) input, and (g) output.

General Assessment of Impact

If success is measured in terms of maturity and the demonstrated ability of an institution to make meaningful contributions to the social and economic development of the country, some outstanding examples of success have been developed cooperatively by U.S. universities, A.I.D. and host institutions. These are found in different regions of the world, and indicate what can be accomplished if the proper combination of variables is brought to bear on programs of institutional development. An examination of these nearly mature institutions, in terms of the land grant concept, suggests ways and means for improving the performance of projects designed to build institutions to serve agriculture.

The single greatest indicator of approaching maturity is the role these institutions are playing in the increased agricultural produc-

2

tion that has developed in some of the less developed countries in the last two years. Already they have increased the supply of capable graduates, performed needed research, and helped develop better educational programs with rural people. These things, often done in cooperation with other institutions, have helped make possible significant increases in food supply of some of the developing nations.

One of these institutions has been identified by educators from other countries in the region as a center of excellence to which these countries would send graduate students for further training in agricultural science. This recognition undoubtedly will stimulate that institution to accomplish even more. There was much evidence that the more fully developed institutions of a land grant type can and will function in the future as catalytic agents in their regions. These more mature projects not only provide evidence of the performance of U.S. university contract projects, but also indicate that the basic land grant principles and philosophies are applicable in different cultures and environments.

A minimum of eight to ten years seems to be required for a new or redirected university to approach the degree of maturity discussed above, and many have not progressed this rapidly. Many of the universities at which projects were terminated after a few years changed little as a result of U.S. assistance and some of these projects were near failures. However, several of the new projects are already showing good progress.

Indicators of Impact

What evidence is there that the U.S. university contract helped develop more meaningful agricultural university programs in foreign countries?

Changes in Training of Staff

One indicator of impact of program is quality of staff, as indicated by the number who acquired advanced degrees. Master's or Ph.D. degrees were obtained by 1,110 persons, with Ph.D. degrees accounting for twenty-nine percent of the increases. Most of the increases in the number of higher degrees can be traced largely to the participant training program. The average trainee taught at least one new course following his study abroad.

Changes in Attitude and Commitment

In a number of cases, administrators have shown a great desire to create a favorable environment for growth and development of the faculty. Likewise, several administrators have taken steps to assure the staff members that their services were needed, and inducements to stay have been developed. Other cases were reported which reflect efforts by government and university administrators to develop a higher quality of administrative leaders.

In a great many cases there was a meaningful change in what the teacher felt his major function and responsibility should be. Traditionally, under the European system, the average professor considered his major role as that of lecturing from a rigid set of notes. Under the impact of technical assistance programs, the professors came to identify their primary function as the continuous creation and accumulation of new knowledge and the sharing of this new knowledge with fellow staff members and with students.

In many of the universities with European heritage, teaching at the university was only a part-time job. Often the teacher had to find employment outside of university circles to earn a livelihood. During the operation of the contract, many universities experienced a drastic change from this philosophy to one in which the professor devoted full time and attention to the university, and the institution increased its pay scale to make this possible. Although this phenomenon had not become a part of the total university system at each contract institution, there were changes in this direction at most of them.

There were a number of institutions where some change had occurred in limited areas and the catalyst was at work so in time significant changes would occur in other areas. The overseas researchers found a number of institutions, even among those where projects had operated more than five years, where it was difficult to find evidence of any basic change in attitude and commitment. Such projects should have a thorough review, with participation by all parties concerned, to determine the causes for slow progress and to develop new strategy for making faster progress.

Organizational Change

Most of the twenty-five institutions underwent some type of organizational change. Three new institutions were developed and ten more were involved in extensive reorganization. The other twelve were subjected to considerable structural change. Only four had little or no change, and three of these were projects of short duration. At each of the four physical facilities and/or curriculum improvement had been emphasized.

Only eight of the twenty-five institutions offered a graduate degree when the assistance programs started. By 1966 five more schools had started graduate programs, and five others were planned. The inclusion of research at ten and extension at fourteen institutions was a significant factor in organizational change, In some cases, changes were limited to an increase in the number of departments and a few administrative positions.

In others there was much more significant change, typified by the following report from an overseas researcher:

> Formerly the colleges of the area were administered under the minister of agriculture and followed the European tradition. In 1963 the new university was founded from three of those, and the land grant university orientation adopted.
>
> This gave great impetus to better teaching and attracted several outstanding administrators. The merged institution followed U.S. university leads in becoming highly visible to the ministry of agriculture, and the latter is now encouraging the institution to take on more research and extra responsibility.

From another region, the overseas researcher reported:

> Within the (institution), the results of the restructuring were the appointment of a full-time Director of Research and Graduate Studies and six Project Directors in each of the areas of graduate study. For the first time it became possible to channel funds to projects without the need to go through the long process of signatures by every official of the parent university. While it gave the (institution) somewhat greater autonomy, at the same time it linked it into the parent university through the new administrative structure.
>
> The total outcome of the new structure will allow greater flexibility for students and professors, and eliminate all of the previous duplication. In addition, it allows graduate teaching and research and provides for a means of funding such programs. It has been a major step forward for both the (institution) and the parent university, as now, for the first time, the collection of faculties can be considered a true university rather than separate entities operating on their own.

While the overseas researchers cautioned against ascribing too much significance to organizational changes because they often occurred on paper only, the concomitant changes in programs or in operations described above are significant.

Improvements in Quality of Education and Teaching

Improvements in the quality of education are the products of many things, including changes in course content, modernization of examination procedures, new attitudes about how and what to teach, and use of various teaching aids. The overseas researchers estimated that there was an improvement in the quality of education in fourteen of the twenty cases which they rated. At six of the institutions there was apparently little or no change in the quality of education, but at none did it become poorer. In many cases, the quality of teaching has shown continuous improvement since establishment of the project. With returning participants and greater staff experience, the number of courses involving laboratory instruction has continued to increase year by year. The increased number of books and journals in libraries and especially the patterns of their use also indicate better teaching.

Despite the problems involved in attempting to change a faculty member's orientation and attitude toward his job, his relationships with students, his methods, and his ability to relate subject matter to country needs, there is evidence that considerable progress was made at many institutions in these respects. The fact that such changes are not yet evident at a particular place or time does not mean that no impact was made. In the performance of some tasks, such as teaching, which depend upon so many variables, change comes slowly. Some trainees returned to their host country and at the start apparently performed the same as they had before participating in the program. However, after time (in some cases years), the results of the experience in the U.S. began to show in their performance as teachers.

Staff Members' Ability to Identify Significant Problems

One of the distinguishing indications of the competence of a staff member is found in his ability to focus upon useful and significant problems in teaching or research. The overseas researchers rated twenty institutions on the ability of their staff in this regard as follows: very good—five percent; good—nine percent; fair—forty-three percent; poor—thirty-three percent; very poor—nine percent. The ability of staff members to identify crucial problems was closely related to their ability to do constructive research.

Quality of Research

When the projects started, there was no research at ten institutions, and the research in progress at the other fifteen was regarded as not very useful. By 1966, two institutions had very useful research under way, and five others were classed as fairly useful. At institutions where research was still not considered useful, the staff appeared unable to identify or define crucial problems facing the country. They were unable to develop consensus among agricultural leaders as to the magnitude of specific problems and hence were unable to obtain funds to conduct research on the problems. The research that was done in such cases usually consisted of language translations of studies already completed elsewhere or repeating work already done. In many cases the research focused on inconsequential or highly theoretical problems because the researcher did not know what the practical problems were.

An overseas investigator's description of the research situation at a project illustrates the dilemma:

> Until recently, research was virtually non-existent. And although the host institution records now show some fifty different research projects in progress, this is largely a hope list recorded on paper. Few of the staff comprehend what research is and still fewer have the training and time necessary to carry out even elementary projects.

From a realistic point of view, many of these institutions simply have not had the resources to develop a research capability, and it often was not their mission to do so until the beginning of the technical assistance project.

Research programs that were considered useful by the overseas researcher were numerous and diverse. They included the introduction or development of new and improved crop varieties and strains or breeds of livestock. New cultural practices were tested and proven. The results of such research could be applied and were of value to the host country.

Agricultural Extension

The outputs of universities include information and services. There is much diversity in the nature of programs, organization, and activities of such work. In the majority of countries, the formal extension responsibility was under the ministry of agriculture rather than the university.

Extension activities of some kind existed at ten host institutions at the beginning of the projects and were initiated at fourteen others during the project operations. In 1966 only one of the twenty-five universities had no extension activities. The creation of extension activities within a university does not necessarily mean that competing agencies were created. The function of extension of providing education and service outside the formal classroom setting can be carried out in cooperation with other agencies or on a limited and informal basis.

It was the consensus of the senior overseas researchers that less progress had been made in developing meaningful extension activities at the universities than in developing teaching or research. There were too many examples where the attempts were made to impose the U.S. form of extension program upon foreign universities. This new creation in most cases attempted to establish a competitive program which was a threat to an existing extension organization and program. U.S. personnel in many cases have not demonstrated creative, imaginative thinking to help the host universities discover new and meaningful roles in assisting extension activities to grow and develop, regardless of where they were in the political structure of the nation. However, the data collected on this project suggest that regardless of the institutions' formal responsibility for carrying out agricultural extension work, an increasing role was played by the universities in at least half of the cases, with increasing demands for their services. In the other half of the universities, where little progress had been made, the situation described by one overseas researcher is typical:

> Some evidence was collected which suggests that the college . . . is still burdened with some images of itself that are outdated heritages from European and Asian universities. This orientation prompts the university personnel to look upon themselves as professional beings who, through lectures, share with students the accumulation of knowledge that teachers have. Their research programs are related to problems in which they are personally interested. With this point of view, the teacher or researcher does not identify himself with the rank and file of the common man, nor does he feel that he has any obligation to help the common man solve his problems. In a sense, the professor isolates himself from the world and lives in his own academic tower.

Physical Facilities

Technical assistance funds were used for the construction of physical facilities in only a few projects. In most places the physical facilities were financed by the host government. There have been substantial changes in the number of classrooms and laboratories for all but one of twenty-one institutions studied intensively. Increases in these facilities generally have been accompanied by increases in office space, staff housing, experimental farm land, and equipment.

It was possible to secure some data on the changes in the number of classrooms and laboratories for twenty-one institutions. It involved a simple statistic indicating the number existing when the project started, in contrast to the number in 1966 when the research data were collected. The average project had been operating about six and one-half years. At the beginning of the projects, there was an average of eleven and one-half classrooms per college. In 1966, this had risen to twenty-five classrooms per college. The increase in the number of laboratories was greater than the increase in classrooms. There were an average of fourteen and one-half laboratories per college when the projects started and an average of forty-two and one-half by 1966.

The need for facilities at the beginning of project varied considerably. At some projects facilities were so inadequate as to be a major limiting factor; at others it was possible to do significant work while planning new or improved facilities.

The overseas researchers were asked to rate changes that occurred in the quality and adequacy of the physical facilities at host institutions during project operation up to 1966. The ratings are shown in tables below. Significant improvements over time are the prevailing patterns in all cases.

Table 3.
Ratings of the *quality* of physical facilities in 1966 compared with the beginning of the project.

Ratings	Classrooms		Labs		Books		Staff Houses	
	N	%	N	%	N	%	N	%
Much better	8	47%	9	50%	11	61%	7	50%
Better	4	24%	6	33%	3	17%	4	29%
About the same	5	29%	3	17%	4	22%	3	21%
Poorer	0	0	0	0	0	0	0	0
Much poorer	0	0	0	0	0	0	0	0
Total	**17**	**100%**	**18**	**100%**	**18**	**100%**	**14**	**100%**

Table 4.
Ratings of the *adequacy* of physical facilities in 1966 compared with the beginning of the project.

Ratings	Classrooms		Labs		Books		Staff Houses	
	N	%	N	%	N	%	N	%
Much better	10	53%	10	53%	12	63%	8	44%
Better	5	26%	5	26%	3	16%	4	23%
About the same	3	16%	4	16%	3	16%	5	28%
Poorer	1	5%	1	5%	1	5%	1	5%
Much poorer	0	0	0	0	0	0	0	0
Total	**19**	**100%**	**20**	**100%**	**19**	**100%**	**18**	**100%**

The figures in Tables 3 and 4 indicate that favorable changes occurred in roughly seventy-five percent of the projects. The twenty-five percent which reported no change do not detract materially from the general favorable picture of improvement because at most of these institutions the physical facilities were good in both quality and adequacy before the project started.

Students

The enrollments at nearly all of the twenty-five institutions increased rapidly during the project operations. The average yearly increase in enrollment for five of the projects exceeded fifty percent a year. The small decreases reported in two cases could be accounted for as normal variations in a generally static situation. There was considerable evidence that the quality of entering students was better. There are increasing numbers of students applying for admission in agriculture and the host institutions have been able to become more selective in admitting new students while increasing their enrollment. The number of bachelor's degree graduates increased at two-thirds of the universities. Where graduate programs existed, there was an increase in the number of advanced degrees.

Relationships Between the Institution and Society

There is evidence that many of the institutions increased the number and strength of their relationships with the various segments of their societies. The increases in number and training of staff and the increases in numbers of students involve increases in governmental support. Many of the most important improvements were with government agencies concerned with funding for the university. Earlier, many of the institutions had few linkages with such agencies. The increase in research and extension programs has facilitated new relationships. Many cases were reported of governmental agencies now looking to the universities for information and help as well as for graduates. This has come about not only because of enlarged programs, but also because of increased confidence in the ability of the universities to perform competently.

A description of how this relationship between an institution and a government agency changed during the technical assistance project has been given by an overseas researcher:

> A high percentage of the professors at the University are part-time teachers, half-time at best. The other part of their time they work with public agricultural agencies such as the State Secretary of Agriculture, the Federal Agricultural Ministry Branch Station, the Bank of (country) and one or two other institutions. Their job at the University is primarily teaching, while their work elsewhere is generally research or administration. Thus, a typical professor will spend the morning at the University teaching one or two courses and the afternoon working at one of the experiment farms of the Secretary of Agriculture.
>
> The U.S. University's strategy was to initiate work with many of these individuals who held two or more jobs, and to help them in their work regardless of what institution they work for. Thus, while

> it was almost impossible for a part-time professor to do research in the University, it made relatively little difference, since he could be assisted with research problems in his other job. After a time, through the equipment purchases of the A.I.D. contract, the University, in some cases, had better research facilities than other organizations. Several of the professors then switched to doing their research at the University laboratories, but continued to draw part of their pay from other sources. The Secretary of Agriculture, for example, was happy with such an arrangement, since it provided their staff with better facilities, and the University was content since it derived benefit through improved teaching. Thus, in several areas part-time University staff are spending full-time at the University, but drawing part of their salary from other sources. An agreement has now been signed between the University and the Secretary of Agriculture. While it apparently has few teeth, it does formalize the working arrangements between the University and the Secretary.

A broad base of support is illustrated in the following:

> Outside of the University, the College has strengthened its relationships with various government agencies concerned with forestry and the forest products industries. The College has entered into cooperative agreements with one government agency for use of facilities and areas on a national forest, and with another for development of 4-H Club forestry projects.
>
> The Joint Committee on Information and Education in Forestry produced outstanding cooperative work under the guidance of the chairman of the College's Department of Forestry Extension. Summer field trips and participation in association programs by faculty members has strengthened relationships with wood-raising industries, and aroused more interest in, and support for, the College on the part of these industries. These contracts also have opened new channels for services from the College.

Establishing and maintaining a broad base of support frees the institution from dependence on a few individuals, because it is supplying needed services to a number of private and public agencies. Another indicator of improved relationships between the university and society is the extent to which university staff members are sought for advisory or consulting positions. Evidence on this was not available for many projects; however, it apparently has increased at some. At one institution it increased from eight such positions in 1965 to twenty-six in 1961 to one hundred fifty-seven in 1966. Some institutions were receiving more news coverage by the press and radio. To a large extent, this was the result of the university's preparing and distributing more news releases and other materials for the news media.

Factors Associated With Successful Projects

The experience of the overseas researchers studying the processes of institutional development clearly revealed a number of factors associated with the more successful projects. Situations differ in the various countries, but some factors were common to many projects. One significant variable is the general quality of the liberal arts education in the country. In some countries, work in the basic sciences and the social studies is well developed. Here the technical assistance efforts can safely be concentrated on the agricultural subjects. In other countries the basic disciplines need development if they are to serve as a base for improved work in agriculture. This factor has been overlooked frequently in the planning of projects in agriculture.

It is not possible to identify all of the elements which contribute to success in institutional development. Some of the major ones, however, as agreed upon by the overseas researchers, are as follows:

1. The preproject planning was better than average. Meaningful project reviews were also held periodically. These provided an opportunity to examine some of the factors that had not been considered earlier and build a solid base for future developments.
2. The sponsoring institution in the U.S. was a strong university with a staff large enough to field the size of team that was necessary to make change possible and meaningful.
3. The U.S. university field teams were, in general, technically well-trained. In addition, they and their families generally were able to adjust reasonably well to cultural and living conditions in foreign countries.
4. There was evidence that team members on successful projects knew something of the varied and subtle aspects of institutional development. They did not limit their contributions to the development of experimental plots, equipping laboratories, revising curriculum, and other isolated projects.
5. Home campus backstopping was good. There was much evidence of institutional commitment from the office of the president down to regular staff members or service personnel.
6. There was continuity of leadership of project operation by the major parties.
7. The technicians stayed on the job long enough to discover a job that needed to be done and worked in a meaningful fashion to complete a task before returning home. In cases where there was a change of personnel, there was continuity in project activities from one person to another. In order to increase the impact, team members

often returned to the host country for a second but shorter tour of duty. In most cases this provided renewed stimulus to project activities.

8. All long-term projects did not succeed in building mature institutions, but all of the more mature institutions had participated in project operations for eight years or more. Many of the longer projects were rated outstanding or excellent. The evidence indicates clearly that all phases of institution building activities cannot be completed in a few years. Unless all parties to the contract are willing to undertake programs that have a potential duration of ten years or longer, dividends on the investment will be small. This does not mean that large amounts of money need to be expended on institutional developmental programs after the major impact has been made. On the contrary, small sums of money expended to maintain communication and dialogue between the sponsoring and host institution would be very beneficial. The development of strategy and optimum use of resources during the later years of project development need critical study and experimentation.

9. Good participant training programs, involving significant numbers of the staff with many obtaining higher degrees, were often a great source of change within the institution. The extent to which they could make meaningful contributions was largely determined by the breadth and scope of their training in the U.S. and the provisions that were made for them to be used effectively upon their return to the home campus. Those trainees who had experiences only in the classroom, the library, and laboratory in the U.S. and those who were relegated to unimportant positions and activities within the university upon their return were not able to make much impact.

10. Desires of host nationals were an important factor in determining success of projects. If the host nationals were extremely proud of the European or Asian system of education, and if they felt that the most meaningful help that could come from the U.S. team was the dollars they brought with them, little progress was made. On the other hand, in those cases where host nationals earnestly sought new and better ways to do things in order to make their university more helpful in the economic growth and development of the country, and where they saw the use of dollars as a means to experiment with this procedure, growth occurred.

11. Successful projects showed a significant increase in outputs—more students, more graduates, additional graduate programs, research projects related to vital local and national problems, and significant off-campus educational activities.

12. Some of the more important changes associated with institutional growth involved changes of attitude and commitment. Staff members became aware of the satisfaction that comes from better teaching and better research. They also became aware of what research could mean to a university and how growing recognition of the institution helps establish linkages with key elements of the society.

Summary

The evidence from the twenty-five institutions that were intensively studied shows that, by the indicators reported above, practically all have shown some positive changes. The majority showed increases in inputs of students and staff, in outputs of number of graduates, extension, and research work. Teaching, research, and extension programs have increased at the majority of the institutions either through the addition of programs or through enlarged relationships with other agencies. There was evidence of improved relationships with other organizations in the society at many of the projects. These, in turn, had further facilitated an increase in outputs and programs. The increase in physical facilities had also helped to increase outputs. Numerous cases were cited, however, where university staff members participated in little research or extension work. In such cases, little change had taken place in the attitudes and commitments of the faculty and administration toward the initiation of research and extension as a university function.

It is important to recognize that many of the less successful projects were not included in the above sample. Many of the less successful projects had been phased out, and only a few of the expired projects were studied in detail. The reason for project termination in many of these cases was that A.I.D. felt that constructive institutional growth was not being achieved. In other cases A.I.D. felt that the institution no longer needed assistance and in others a decision was reached to withdraw all U.S. foreign aid from the host nation.

A study of several projects which were terminated after a few years indicates that in none was the basic task finished. In most, the progress which was made during the life of the project toward developing an institution with the desire and capability to serve its nation's agriculture has been lost, because the institution had not yet developed a broader role than that of resident instruction. In many of these institutions staff competency was increased and libraries and laboratories were improved, but the tasks of changing attitudes and of developing a broadened role for the institution were not completed.

In most instances these projects were instituted without adequate planning, particularly as to the role which the institution was expected to play. In no case was evidence found to indicate that all concerned entities of the host country had been involved in planning a new role for the institution. In some situations it was apparent that A.I.D. had not integrated all aspects of its assistance in the agriculture of the country, with the result that A.I.D. assistance to other programs limited the development of the university.

In general these projects were both poorly planned and terminated too early, with the result that little was accomplished. In a few cases, A.I.D. started new university projects where an earlier project was terminated. In several other situations both the host country and United States interests would be served by the establishment of a new institution project where projects were earlier terminated. All such new projects should be preceded by thorough and detailed planning of the goals to be achieved, participated in by all the host country and U.S. agencies which would be concerned. Such planning should include a determination of the needs of the host country, the role of the institution to be assisted, and the contributions to be made by each country.

The impact of the technical assistance programs abroad can be summarized by restating an observation found elsewhere in this report: The accomplishments have been good enough to warrant pride, yet poor enough to demand greater attention and improved performance.

Effects on U. S. Universities

V

66/67

A major objective of the research was to evaluate the effects of participation in international technical assistance activities upon U.S. unversities' domestic and foreign program capabilities. This analysis was divided into three broad subtopics: the impacts of participation in A.I.D. contract projects upon (a) individual staff members, (b) departments within colleges of agriculture with faculty members serving on overseas projects, and (c) general impacts on the universities.

This chapter also treats the subjects of university commitment to international work, the conditions under which it is appropriate for universities to participate in rural development projects, and the need for developing public understanding and support to strengthen university capabilities in international agriculture. (17)

Data on the effects of A.I.D. contract participation on U.S. universities were obtained by questionnaires and interviews of those who had returned from A.I.D. assignments, their colleagues, and administrators of departments, colleges of agriculture, international programs, and university-level administrators. Questionnaires were completed by 598 persons who had returned to the U.S. from A.I.D. contract assignments; 239 of these were also interviewed on visits to 32 university campuses. In addition, 336 colleagues of those who had served overseas completed questionnaires. Department heads completed 141 questionnaires and 120 of these people were interviewed. Structured interviews of 109 college and university level administrators were conducted by the research analysts.

The Career of the Individual

The effects of participation in technical assistance activities on U.S. universities are highly dependent on the impacts on the careers of individuals. The assessment of these impacts by those who have returned from foreign assignments, their colleagues, and administrators are highly important.

Overseas Assignments and Career Disruption

The university community has not developed a clear consensus on the way the A.I.D. contract assignment fits into the professional career of the university faculty member. Two out of five of those who stayed overseas two years or less gave concern for professional recognition and contracts as an important reason for the decision to return to the U.S. One-fourth of those who have returned from overseas assignments indicate that they lost time in professional growth in their field. More than one-third of the faculty colleagues expressed the feeling that a foreign assignment is likely to detract from a man's professional advancement. Although these are minorities, they are highly significant in terms of not only the combined effects on the individuals but also the attitudes that these persons convey to others who may be interested in international work.

Those who have served overseas on A.I.D. contract assignments value the experiences; however, they, their colleagues, and department heads in general agree that it is difficult for returning staff members to use their foreign experiences. Only about half of them ever had an adequate opportunity to report their experiences, observations, and recommendations to college faculty and college and university administrators. The best outlet for use of the international experience gained has been in counseling, instruction, and supervision of foreign students. The opportunities in research and extension have been much more limited.

Many of the problems of career disruption arise from the overseas service orientation of most A.I.D. contract projects as viewed by university administrators and the willingness of many to accept a first foreign assignment as a professional interlude. However, most of those who accept one assignment as an interlude are unwilling to continue in international work on this basis. Furthermore, their second thoughts about the professional costs of the overseas assignment may influence the decisions of those considering a first assignment.

The Individual Assignment and the Department Program

Ideally, the overseas assignment should be planned as an integral part of the university department's work and as a contribution to attainment of the career goals of the faculty members involved. To date, however, there has been a wide divergence between the actual and the ideal. In most cases the overseas assignment has not been planned with a view to protecting or enhancing the department's program, nor has it been designed to promote the professional goals of the individual. For the most part, once the overseas assignment is completed the individual is expected to return to the same types of domestic responsibilities that he had before leaving. In the meantime, however, the individual who has been on the foreign assignment finds his professional interests have changed. Ninety-one percent of the staff members who returned indicated that they had developed a greater interest in international affairs.

Some of the lack of opportunity to use international experience arises from the dearth of funds to support campus-based international activities. University administrators should not be criticized for failure to encourage faculty members to pursue interests that cannot be financed. However, few university administrators regarded this as a means of widening their own institutional horizons. Few have made a conscious effort to discuss the overseas assignment with the returned staff member or have recognized the need for helping the staff member to readjust to his domestic work or the real opportunity this provides. A limited number of universities have developed arrangements under A.I.D. financing for the international interests of returned staff members to be used in support of contract objectives. Only a few universities have exercised leadership and imagination in obtaining funds from other sources to encourage the international interests of faculty members. Lack of funds has been a serious impediment to development of the international dimension in colleges of agriculture but this has not been the sole limitation. In too many cases, there has been a failure to see the potential in the A.I.D. contract project for developing the university's international dimension through building strong department programs and developing the international components in the careers of faculty members.

Improving Personnel Management

There are no simple recipes in personnel management, but individual staff members and administrators can take these positive measures to make the overseas assignment contribute to the career goals of the individual as well as to the on-campus international program:

The Individual's Role. The role a person is to play must be better understood before he accepts the assignment. This requires careful planning by campus administrators and the project team leader in order to develop concurrence on the part of all concerned. If international work is to have the status of domestic research, on-campus instruction, and extension, it is important that colleagues of those accepting foreign assignments also understand how the individual's international experiences are to contribute to the goals of the discipline-oriented department.

The "Advisor" or "Technician." The titles "advisor" and "technician" for those serving on university-A.I.D. contracts should be discontinued. If a common standardized title is needed by A.I.D. and the universities, it is recommended that "professional" or "university faculty member" be used. Both the "advisor" and "technician" titles have connotations undesirable to U.S. university faculty members and host country nationals. It is not intended to abandon the concept of assisting host country nationals in developing their competencies to manage their own technical, professional, and administrative affairs. Serving as an active participant by working closely with host country nationals would strengthen the influence of the contract staff member and be more consistent with professional interest and growth. The university faculty member should continue to hold his title with the U.S. university. In addition, he should be given a title at the host institution appropriate for his education, experience, and responsibilities (see Chapter VII and (17)).

Professional Isolation. This is a problem on assignments in most of the less developed countries. One is likely to have access to only a limited number of the professional journals. Personal contacts through professional meetings are another important means of keeping up-to-date on the latest developments in the field and of learning about work being done that may not be reported in professional publications for months or even years. University administrators favor placing more emphasis on assuring that their staff members have ways to continue their professional contacts while overseas. A majority of returned staff members favor the idea of permitting staff members to attend one professional meeting in the United States during a two-year assignment. This idea is most strongly supported by younger staff members, those more oriented toward research, and those who were on a university staff before their overseas assignment.

Travel to professional meetings may seem costly to some; however, the benefit-cost ratio may be quite high if this encourages the best agricultural scientists to contribute to overseas project objectives. All reasonable avenues to keeping the university faculty member in touch with developments in his profession field should be explored.

Both university staff members and A.I.D./Washington personnel favor the idea of travel to nearby countries to study similar development projects and exchange views with professional personnel with like interests. This should be encouraged and supported. This type of travel has been permitted under some A.I.D. contracts with the approval of the contract team leader and the A.I.D. mission director, but it has not been generally encouraged.

Graduate Student Contribution. There is an increasing appreciation of the role that graduate students can play in support of A.I.D. contract objectives. Many faculty members who are strongly oriented toward research and teaching feel that if they go overseas without graduate assistants they are going without the most effective means of conducting their work. Interestingly enough, two-thirds of the A.I.D. officials look with favor upon the idea of use of graduate students but emphasize the importance of the student making a direct contribution to contract objectives.

Flexibility in Length of Assignments and Personnel Management. There is need for greater flexibility in length of A.I.D. contract assignments than has been common in the past if the assignment is to fit into the goals of the individual and the university department. There does not seem to be any particular reason to use the two-year assignment as the standard. The needs of the overseas project, university objectives, and career and personal considerations must all be taken into account in personnel management for international work. In some cases these needs will dictate longer assigments, particularly for team leaders and other key persons in which continuity of service is an important consideration. In other instances, assignments of less than two years should be more widely used.

The need for greater flexibility in personnel management will require the universities and A.I.D. to carefully consider means of encouraging university faculty members to contribute to international work in a wide variety of ways. The types of university faculty members needed for overseas projects are those deeply involved in educational endeavors at home. Thus, they can be attracted to international work only if the potentials for service and professional and personal benefits are fully comparable to those from work currently under way.

Impacts on University Departments

The department is the basic unit of education, research, and administration of most colleges and universities, and, in fact, of all of the colleges of agriculture involved in this study. The department head or chairman is responsible for giving leadership to his faculty members to maintain and strengthen the work of his department. The program of the college arises, for the most part, from the collective and cooperative efforts of its several departments under the leadership of the dean of the college and his administrative associates. Therefore, the analysis which focuses on the department level is in reality a study of the impacts of A.I.D. contract program participation on colleges of agriculture and their departments.

The evaluation was divided into three main parts: (a) the effects of faculty members accepting overseas assignments, (b) the impacts following return of faculty members, and (c) the effects of students in participant training programs.

Effects of Faculty Members Being Overseas

This research project has clearly shown a serious lack of enthusiastic support of A.I.D. contract projects by university department administrators. At the same time these administrators recognize that universities have a definite role to play in international agricultural development. The lack of support, at the same time that the need for greater involvement in international work is recognized, is explained in large part by the effects of A.I.D. contract assignments on department programs and personnel.

There has been substantial disruption of department programs by faculty members accepting foreign assignments. One-third of the department heads reported all or a part of the activities of those going overseas were discontinued. A similar proportion of those who went overseas said that the work they had under way before leaving was interrupted and much time and effort was lost as a result of their departure.

A majority of department heads and colleagues of those who were on foreign assignments rated the work done by their replacements as less effective. Many of the replacements of senior faculty members were graduate students and temporary appointees. The problem is the most serious for research but also a major concern in teaching and extension work. Supervision of graduate student research and student counseling were often performed less effectively by replacements.

Many colleagues of those accepting foreign assignments are sensitive to the additional committee, student counseling, and special assignments that they acquire. About one-third of them and their department administrators point out that this interferes with the professional growth of those who remain. Many colleagues feel that department heads give less attention to domestic work than is desirable because of the time devoted to international work.

Department heads are concerned over the costs to domestic programs that arise from A.I.D. contract participation. They see the need for international work but feel that it can be acceptable only if built on a base of strong and improving domestic work. They have been faced with difficult personnel management responsibilities as a result of A.I.D. contract projects that have too often been considered temporary and indefinite and without particular relevance to department programs. In most universities, the funds released when a faculty members goes on an A.I.D. contract assignment are available for the department heads to employ a replacement. Although the funds may be available, there is a problem of filling the position with a person as experienced as the staff member assigned to the A.I.D. contract project. The position must be protected for the return of the staff member when he returns at some indefinite time. Senior experienced staff members are difficult to employ in temporary positions. Thus, there is need for A.I.D. and university and college level administrators to recognize the substantial costs in terms of less satisfactory performance of domestic work resulting from staff members being involved in A.I.D. contract projects. The funding of university A.I.D. contract work on a year-to-year basis does not permit university department administrators to make long-term personnel commitments so the department's international agriculture competence can be strengthened without serious implications for the ongoing work oriented primarily toward domestic needs.

Impacts Following Faculty Members' Return

There have been generally favorable impacts on U.S. universities following return from overseas assignments, particularly if viewed in terms of the relatively small proportion of university faculty members that have been involved. More than ninety percent of those who have returned report that they developed broader vision and interest in international affairs. Three-fourths said that they had acquired knowledge that had been useful since returning. At the same time, many lamented the fact that there was less opportunity to use the foreign experience than they thought was desirable. Department administrators seem to be more impressed by the problems created by the staff member's absence than by the delayed benefits that accrue after his return.

The most significant effects on the academic community have been through student counseling and teaching, with more than half of the colleagues of returned staff members reporting favorable effects of foreign experience on teaching. Returned staff members have developed new courses and have substantially modified existing courses to add an international dimension. About one-fifth of the department heads reported new courses, and one-fourth reported modification of existing courses. Returned staff members contributed to the department's work by serving more effectively as foreign student advisors.

The financial impact of A.I.D. contract involvement, in terms of added resources, on most college of agriculture departments has been relatively small. Nevertheless, it has been significant in some departments. The most commonly reported purpose of new funds was for assistantships for foreign students.

There are differences among disciplines in the impact of A.I.D. contract participation. In general, the greatest impact has been in the social sciences and in agricultural education and extension, followed by the plant sciences, animal sciences, and agricultural engineering. A higher proportion of the social scientists see the relevance of their overseas work to their professional discipline than do those in the animal and engineering fields. Those in all disciplines see benefits to instruction and counseling of foreign students. The social scientists clearly lead in development of new courses in the international area as well as in modification of existing courses; however, substantial impact on existing courses has also been made in the plant and animal sciences and in agricultural education.

The A.I.D. centrally-funded agricultural research projects were not intensively studied; however, most of the seventeen land grant universities participating in seventeen such projects were a part of this study. These projects have had a specific discipline focus such as soil testing, seed technology, weed control, marketing, credit, or diffusion of innovations. Indeed, the C.I.C.-A.I.D. Rural Development Research Project, with its emphasis on institution building, is a project of this general type. These, because of their nature, have had a favorable impact on U.S. university departments in terms of building an international dimension into a phase of the department's work.

In summary, there is urgent need to support and encourage university faculty members who have had international experience in bringing this experience to bear on university programs and to continue to support overseas projects. Only through fully exploiting the potential that rests within these experiences and increased interests can a favorable benefit-cost ratio be realized.

Impacts of Participant Trainees

Students from different cultures and with widely varying educational backgrounds are certain to bring both benefits and problems to U.S. universities. While the impact is impossible to measure, the effect of foreign participant trainees on U.S. university faculty and students has perhaps been the biggest single impact of the participant training program on the U.S. university community.

The three major problems have been that participant trainees need more counseling than the American student, lack proficiency in English, and lack adequate preparation in basic courses for graduate study in the U.S. university.

Nearly half of the university department heads report that providing laboratory and office space presents problems. The American graduate student in agriculture usually is employed as a part-time assistant and his research is part of a funded project of the agricultural experiment station. The costs of carrying out his research in the laboratory or on the experiment station farms are provided for in the budget of the research project. For the foreign participant, no such funds have been allocated for dissertation research. The net effect is that the participant is likely to get less priority and his research is likely to be less relevant to the university's objectives than that of the research assistant on a part-time appointment as a part of an experiment station project. Thus, both the participant and the U.S. university fail to gain the maximum benefit from the participant training program.

A.I.D. should more fully support the costs of teaching and counseling participant trainees, including the costs of facilities, equipment, office space, and laboratory space for dissertation research. This would encourage department administrators and faculty members to involve participants in research that is more relevant to the needs of the developing countries. Such research would also strengthen the university's international dimension. More flexibility is needed on the part of both A.I.D. and the universities, to permit and encourage participants to gather research data in their home countries, and complete dissertation research either in these countries or after return to the U.S. In some cases, provision is needed for travel of U.S. university faculty members to overseas locations for short periods. Universities should strive for more cooperative arrangements permitting faculty members from two or more U.S. and foreign universities to serve on dissertation review and examining committees.

General University Impacts

A limitation of A.I.D. rural development contracts to few subject matter fields, mostly within colleges of agriculture, has tended to restrict the impacts of agricultural technical assistance involvement on the university generally. Of the forty-nine projects with development of a degree-granting institution as a major objective, only seven involved the development of a non-agricultural college. Therefore, the primary focus in assessing impacts was on U.S. university departments and disciplines within agriculture.

The broader impacts of A.I.D. contract program involvement fall into two general interrelated categories: those that affect the university itself, and those that relate more specifically to university programs overseas.

University Campus Programs

The following suggest the kind and magnitude of changes that are traceable wholly or in part to university A.I.D. contract program involvement:

Administrative Organization. There has been a significant development of administrative organization and personnel appointments to give leadership to international programs on twenty-one of the twenty-eight universities studied that currently have active technical assistance projects. A.I.D. contract program participation has clearly been the driving force behind this improvement.

New Curricula and Courses in the International Area. Eight universities have established an undergraduate curriculum in international agriculture either as a major or minor. Eight others are in various phases of discussion and planning of such curricula. Ten universities have established new courses in some phase of international agriculture and six others are planning such courses. These courses are usually taught by a staff member with foreign experience, often by one who has been on an A.I.D. contract project. Two universities report as many as six new courses related to international agriculture. Most frequently mentioned subject matter areas include economic development, tropical soils, tropical crops, animal production in developing countries, and agricultural extension and education in developing countries. University involvement in A.I.D. contract projects has stimulated interest and enrollment in foreign languages and, in a limited number of cases, the establishment of programs of instruction in languages not previously offered by the university.

Area Studies Programs. Staff members who have returned from A.I.D. contract assignments have made significant contributions to area programs; however, the potential in the experiences of these persons has been far from fully exploited. The impetus for development of area studies programs has usually come from colleges of arts and sciences. With their involvement in overseas contracts, many colleges of agriculture now have experienced staff who can contribute to these programs. Only eight of the universities studied are conducting area studies programs that include some agricultural or forestry dimension.

Participant Trainees. Students on participant training programs have had significant impacts on unversity communities that extend far beyond the influence on other students in the classroom. Foreign student associations, student union programs, campus churches, YMCA, YWCA, host family programs, and appearances before school, civic, and other community groups provide means by which better understanding of the cultures and aspirations of different people are developed. Some of these influences extend far beyond the campus, throughout the state, and even beyond.

Special Conferences and Programs. Several universities reported that agricultural staff members with A.I.D. contract experience have participated in a wide variety of conferences and programs. For example, with non-A.I.D. funds, three universities have sponsored seminars on international aspects of agriculture. Eight universities have held conferences of A.I.D. contract coordinators or directors of international agricultural programs. One university has established a world forestry institute that involves several aspects of teaching and research.

Funds From Non-A.I.D. Sources. Federal support from non-A.I.D. sources, some of which are directly traceable to A.I.D. contract experience, have been received from such organizations as the Peace Corps, National Science Foundation, Department of Defense, and the U.S. Department of Agriculture. Support has also been received from foundations. Thirteen universities report that they have received new funds for full-time staff as a result of involvement in A.I.D. contract programs. These include both department-level staff members and significant additional staffing in international administration positions. However, with only a few exceptions, the new department-level staff members have not been given specific major responsibilities in international agriculture. To date, there has been a disappointing lack of financial support from state sources for research and education in international agriculture.

University Overseas Programs

The experiences of individual staff members and institutional involvement in A.I.D. contract programs have led to continuing and expanding international involvements.

New Contract Projects. Eleven universities credit their experiences on earlier A.I.D. contracts as the basis for their being asked to assume responsibilities for other A.I.D. contract projects. Nine universities report receiving foundation grants or contracts relating to agriculture.

Contributions to Contract Projects. Staff members who have had overseas A.I.D. contract experiences have continued to make contributions through such means as later long-term assignments, serving as short-term consultants, serving on international program committees, orienting staff members going overseas, and conducting research on development problems of the less developed countries.

Contributions to Administration. At least six of the campus coordinators or directors of international agricultural programs have been on a contract assignment of one year or more. Many more have served as executive visitors and short-term consultants, thereby improving their abilities both in administering A.I.D. contract programs and developing on-campus international activities.

Foreign Language Competence. The foreign language competence that has been gained by those who have served overseas has been used in hosting foreign visitors and students.

In summary, it is clear that participation in A.I.D. rural development contracts has had a significant impact on universities, particularly if one considers the size of the A.I.D. contract involvement relative to the total university program. Nevertheless, there is considerable potential for increased impact through improved program and career planning and administration and communication among faculty and the several university administrative units. University A.I.D. project administrators rather generally recognize that both their overseas projects and feedback to university programs would be strengthened by participation of faculty members from colleges other than agriculture. The social scientists as well as the physical and biological scientists with interests in institution building could both complement and undergird the efforts of agricultural scientists on many rural development projects.

Attitudes Toward International Programs

International technical assistance work by universities has yet to gain full acceptance as a dimension of the university program along with domestic teaching, research, and extension. A majority of university faculty and administrators generally favor international technical assistance work as part of the university program, but a significant minority are less willing to commit the necessary personnel and other resources to carry out the work effectively. There is need to develop full understanding of the place of international work among faculty generally and administrators at all levels.

International technical assistance work by universities is a relatively new field of endeavor. All new activities undertaken by an institution of higher education go through phases of acceptability. A.I.D. contract program participation has undoubtedly been a major factor in shaping attitudes toward international development. No other single organized program has involved as many faculty members and brought as many foreign students to U.S. university campuses.

Evidence suggests that the unfavorable attitudes of many university faculty members arise from the manner in which A.I.D. contract programs have been planned and implemented and their lack of integration into the university program. About nine out of ten university staff members who have returned from A.I.D. contract assignments, their department heads, and colleagues agree that international technical assistance should be a part of their department program. At the same time faculty members and department administrators are less certain that their staff members should participate in A.I.D. contract programs as they have been conceived and administered in the past. Twenty,thirty-four, and forty percent of returned staff members, colleagues, and department heads, respectively, agreed that "with all the demands upon our staff, our department would be better off if we did not have to give up staff members for overseas assignments."

This response suggests the strong domestic orientation of the majority of the university faculty members. At the same time, attitudes are undoubtedly strongly conditioned by the disruptive nature of A.I.D. contract programs and the fact that some domestic work has been left undone or done less effectively.

College and university level administrators generally favor expansion of the international dimension of the university's program; however, the period of development and expansion of A.I.D. contract programs involvement has been one during which there have been strong pressures on university level administrators for other services. It has been a period of rapidly increasing student enrollments, although the increases have varied from field to field. A number of colleges of agriculture were experiencing declining, or at best stable, enrollments in the late 1950's and the early 1960's at the same time that colleges of arts and sciences, for example, had soaring enrollments. In some states, colleges of agriculture budgets were being reduced. This may explain, at least in part, the aggressive attitudes of some deans and university presidents in seeking A.I.D. contracts.

There is a significant attitude on most campuses that administrators at the university and college level are committing the institution to international programs at a more rapid rate than the faculty is prepared to accept, given the personnel and other resource constraints. Forty percent of staff members who had returned from A.I.D. contract assignments and fifty-eight percent of their colleagues indicated that "on our campus, the administration gives much more support to foreign programs than our staff."

In all but a small minority of universities, staff members feel that university administrators are too prone to make a commitment by signing an A.I.D. contract before department administrators and faculty understand program objectives and the implications of such a commitment. Better communication and a continuing dialogue among faculty and administrators regarding international work and the role of the university community in international development is badly needed. The decision to participate in an A.I.D. contract project should be made only after a strong consensus has been developed among the faculty and administrators concerned that participation contribution to the goals of the university and to the professional interests and careers of individuals who are to be involved.

University Commitment and Support of International Work

University Commitment to International Work

There are wide differences among universities in depth of commitment to international work.

"Commitment" is used in the sense of an obligation or pledge to pursue program objectives with imagination and vigorous action both overseas and at home. It includes interest in capitalizing on the experiences gained from the A.I.D. contract project and in building long-range university competence in international affairs. To be "involved," without commitment, a university is drawn into a contract project, but is primarily oriented toward participation in the overseas project with unclear objectives.

The reasons for varying degrees of commitment or involvement are not fully understood. Amount of international experience is a factor but by no means a full explanation. Some universities that have been engaged in A.I.D. contract work for ten or more years still are not committed. As one studies the many universities that have been involved in agricultural technical assistance some evidences of involvement both with and without commitment can be identified.

Evidences of Involvement With Commitment

1. The university is interested in developing its stature in the

international area and recognizes international work as a legitimate concern of the university deserving added resources.

2. Faculty members are involved in an organized way in major policy decisions on international work. The decision to enter a new program is made only after consideration by faculty members as well as administrators. There is a continuing study and solicitation of ideas from the faculty through committees, seminars, and public discussions as a means of developing policies and reaching agreement on the proper role of the university in international activities.

3. On-campus personnel are actively engaged in determining policies and strategies for the university's contribution to overseas projects. Guidance is given to the field team without usurping the autonomy that is needed in the field for effective program implementation with the host country and host institution. The field team's place in the administrative structure of the university is understood and the team leader is respected for his professional competence and as an administrator.

4. International work is an integral part of the work of the departments. Department administrators are actively involved in overseas program planning and personnel management in their discipline. Overseas experience is looked on as contributing to professional growth of the individual. Faculty members and graduate students, both domestic and foreign, have the opportunity to pursue research on international problems. Department heads have international experience gained through a combination of long- and short-term assignments and executive visits.

5. There is an administrative organization to give leadership in the international area with effective means of communication among faculty members and among administrators at different levels—university, college, and department — and across college and departmental lines. International program administrators are sensitive not only to the needs of the overseas program and personnel but also to the requirements for building university long-range competence in the international area.

6. Faculty members who have returned from overseas assignments are using their experience to build university programs and competence in the international area. There is an organized and continuing program for soliciting the ideas of returned faculty members for improvement of both overseas and on-campus programs.

7. University personnel policies encourage faculty members to accept foreign assignments with assurance that their positions with respect to rank promotion, salary, position upon return, and fringe

benefits are not jeopardized. Staff members on foreign assignment are viewed by administrators and colleagues as continuing members of their university administrative units, *not* "on leave with A.I.D."

Evidences of Involvement Without Commitment

1. The A.I.D. contract program involvement reflects the interest of a key administrator in performing a necessary service similar to that provided by other universities but is not looked on as a means of developing long-run university competence and stature in international work.

2. Faculty members, other than those directly involved in administration of the A.I.D. contract program and those recruited for overseas assignments, know little about the program. There is little involvement of the faculty, through normal means for domestic work, in either policy or operational questions on international work.

3. Most questions of A.I.D. contract policy and strategy are left to the field team with little guidance from the home campus, except for an occasional executive visit from the campus coordinator or dean of agriculture. The team leader is likely to lack prior administrative experience and may have been recruited from off campus.

4. There is little involvement at the department level except for filling in for a staff member who has been recruited for the overseas project and training participants. International work is not looked on as contributing to career development in the professional discipline and the best staff members are discouraged from accepting foreign assignments by the department heads and their colleagues.

5. The administrative organization is limited to a campus coordinator whose duties are primarily administrative and logistical backstopping and assisting with recruitment of overseas staff members under the guidance of the dean or an associate dean. Little attention is given to encouraging feedback of overseas experience into on-campus international work.

6. Staff members who have returned from overseas assignments have little opportunity to use their experiences and increased interest in international work and are expected to resume their research and teaching (on-campus or extension) with strong domestic orientation. Once the assignment has been completed, little effort is made to use the individual's ideas and experiences to improve either the overseas project or on-campus programs.

7. Staff members who have been on A.I.D. contract assignments are looked on by department heads and their colleagues as being "on leave with A.I.D." Who is administratively responsible for such

personnel matters as salary and rank promotion during and immediately following the assignment is unclear.

It is not in the best interests of either A.I.D. or the university to continue involvement in technical assistance work without commitment. Involvement on this basis disrupts domestic programs and the professional careers of university faculty people. Participation with an overseas service orientation alone weakens the domestic program without strengthening the long-run competency of the university to contribute to international development. Commitment does not necessarily grow out of the experiences of mere involvement over a period of years. University faculty members and administrators must develop a definite consensus on the role of their particular university in international work. Some universities may choose not to become committed to international programs. From the standpoints of both A.I.D. and the university, this choice is a better one than to choose a drifting involvement without commitment.

In summary, universities that participate in technical assistance projects should make every effort to develop a true commitment to international work in order to maximize overseas project success and at the same time, maximize benefits and reduce costs to the domestic program. In seeking U.S. universities' help in international development, A.I.D. should give priority to universities that have made a definite commitment to international work.

Conditions Appropriate for University International Work

There is considerable interest in such questions as "Under what conditions is it appropriate for universities to participate in international development activities?" and "What criteria should be used in determining the appropriateness of overseas projects?"

Most of the projects in this study had as their primary objectives the building of educational institutions and supporting of agricultural research and extension work. Administrators of the individual U.S. universities think that they are involved in appropriate types of projects; however, few administrators give detailed and explicit criteria for determining the appropriateness of projects.

The objectives of universities in their international programs conducted on campus and abroad will not be identical. Each university should develop its own criteria for determining the appropriateness of A.I.D. contract projects and other types of international involvement. The following broad guidelines should serve as general criteria for judging the appropriateness of A.I.D. contract projects:

1. The project should serve the needs of the host country or host

institution, but this alone is not a sufficient condition for U.S. university participation.

2. The universities should have strength in the areas or disciplines in which the work is to be done.

3. The program of the overseas project should complement the domestic programs of the discipline-oriented university departments involved.

4. The project should show potential of adding to the stature of the U.S. university. Obviously, to do this, overseas work should be consistent with the objectives and goals that those who support the university and serve on its faculty and staff expect it to attain.

5. The project should provide for university faculty study and research, thereby increasing the knowledge base of the university and enabling faculty members to gain in professional competence and to gain recognition among their professional peers.

6. The work to be done should be of such significance and in an environment that permits university faculty members who participate in the project to advance professionally both during and after the overseas assignment.

7. The project, its environment, and library and communication facilities should permit the U.S. university faculty member to stay in communication with his colleagues in the university and the wider scientific community.

The predominance of educational institution building projects among the sixty-eight rural development contracts included in this study shows that, up to this point, university administrators have thought this type of A.I.D. contract project most appropriate. At the same time a number of the projects did not have as their objective the development of a degree-granting institution. Some provided for secondary and technical training in agriculture; others provided for ministry-related research and extension activities; and a few had as their primary focus an immediate increase in agricultural production.

Many university administrators question the advisability of entering into anything except university building projects. They seem to limit their thinking to educational institutions in asserting that institution building should be the primary focus of U.S. universities and agricultural technical assistance. This is a narrow concept of institution building if one thinks in terms of an institution as broad as the land grant institution of the U.S. Many fail to realize that in most developing countries other types of institutions must also be developed if the basic ideas of the U.S. land grant system are to be effective. Agricultural development is highly dependent upon development of complementary institutions such as effective government ministries of agriculture, credit agencies, effective marketing systems, and other public and private institutions for supplying the services and technological inputs needed for a modern agriculture.

There is considerable discussion of the appropriateness of a university providing the staff for secondary schools and technical schools and institutes. With the broad interests of most universities it may be possible that the criteria proposed could be met with involvement in a secondary or technical school project. For example, this might be a way for faculty members in vocational agriculture or comparative education to gain expertise needed in training Americans to become teachers or in training students from other countries to become leaders in developing the educational systems of their countries. Thus, one cannot generalize and conclude that universities have no role to play in these A.I.D. contracts that have as their primary objective the development of technical or secondary schools, or even primary schools. Each U.S. university must evaluate such a proposed A.I.D. contract project using these criteria and perhaps other more specific criteria that the university faculty and administration might consider appropriate.

Some administrators see as appropriate the use of university staff on consulting assignments where they can provide professional and technical services. With the tremendous need to develop international experience of more college of agriculture faculty members, this may be a means of gaining that experience providing it can be done without undue conflict with ongoing programs.

It is clear that using the above criteria would not legitimize university involvements in A.I.D. contract programs if the contracting university serves primarily as a mechanism for assembling a group of people to serve on the contract project who are not already employed by that university and who do not become members of the university faculty upon return.

In conclusion, universities should participate in only those A.I.D. contract projects that have objectives that are congruent with the research and educational objectives of an institution of higher learning. Each university should develop specific criteria for determining the types of technical assistance projects that are appropriate for it to undertake.

Strengthening University International Capabilities

U.S. universities are taking less advantage of the opportunities afforded by their overseas activities for enhancing domestic international programs that are warranted by the long-range interests of both the university and the nation. To some degree this is a reflection of the lack of experience of most universities in international affairs. Most universities have oriented their A.I.D. contract work only toward improvement of the less developed countries. Some of the difficulty rests in the nature and objectives of the contract projects in which they have engaged. The objectives of each one reflects the needs of the host country. The contractual arrangement implies that the university contractor is prepared to fill the contract objectives, not that the long-run university competence needs to be improved. The university has lacked funds for the international interests of those who have gained experience on A.I.D. contracts. Thus, means complementary and supplementary to the overseas service oriented contracting arrangement must be found to strengthen university competence in international development.

The developing countries most in need of technical assistance are located in the tropics and some sub-tropical climates. Few U.S. universities serve domestic areas of similar climate and ecology. Competence can be developed if these universities know they will have a long-term commitment to work in these areas and if resources are provided. Short-term contracts and annual appropriations are not conducive to university development of competent staffs to work in international areas on a continuing basis.

The need for institutional support is pointed up by many top-level university administrators. The purpose of the added financial support is to enable the university to do a high quality job in international work both at home and abroad on other than a stop-gap basis and to truly build the international dimension into the U.S. university.

The U.S. Congress took a forward step in the Foreign Assistance Act of 1966 when it authorized grants to universities so that they could develop more depth of competence in international work; however, not until fiscal year 1968 were limited funds available for this purpose.

The place of technical assistance and its accomplishments tend to become minimized and obscured in the broad and diverse programs of A.I.D. This is particularly true of the programs of which the U.S. universities are a part. The need for and the potentials in technical assistance, particularly the work of U.S. universities in assisting in institutional development and technological advancements in agriculture, are critical and unique. Therefore, the organization and administration of this activity within A.I.D. and the manner in which the needs for this work are presented to Congress and the general public should reflect the high priority that this endeavor deserves.

The success of cooperative federal government and U.S. university international work depends on public understanding of the nature and magnitude of the problems of the world and the appropriate role of the United States in their solution. Lack of consensus on this broad issue is accompanied by lack of definite policies and financial resources commensurate with the task to be done. A.I.D. contract experiences have undoubtedly had some influence in developing understanding of international affairs although the precise effects cannot be measured. University A.I.D. contract staff members have shared experiences with students and others after return to the U.S. Participants have influenced students, faculty and others as well. Yet, in the U.S., there is a sobering lack of understanding and definite consensus on the place of the U.S. in world affairs and the importance of developing the agricultural resources and improving the welfare of rural people throughout the less developed world.

Within the university community, there is general agreement that students should have better understanding of the people of the various parts of the world, their history, culture, and economic and political systems. There is much less consensus both within the university and among the general public on the role of the U.S. university in participation in programs to accelerate the rate of change in the less developed world.

Among the general public, there is general awareness of the many problems of the world and a latent feeling that it is in the interests of the United States to do something about the problems. The attitudes of those who have served on A.I.D. contract programs and the contacts with foreigners who have come to the United States under A.I.D. contract programs have aided in developing this awareness. Other foreign visitors to the United States and the increasing international travel of U.S. citizens have also contributed. Still, there is great lack of understanding of the political and economic interrelationships of the U.S. and other countries. Farm and other agricultural businesses are increasingly interlinked with the economies of foreign countries. Countries that only a few years ago were classified as less developed are now important importers of products of U.S. farms. U.S. suppliers of farm production inputs such as fertilizer, feed, seed, pesticides, and tractors and machinery have expanded exports.

The federal government needs to expand its support of technical assistance projects in agriculture and to strengthen the competence of U.S. universities to assist with this task. At the same time, state governments must prepare for the immediate and near future by supporting international education in agriculture. More U.S. young people need to be educated for agricultural development work. The agricultural research base of the U.S. universities needs to be broadened geographically. Public service institutions have an increasing role to play in helping U.S. farm and agricultural businesses with their interests outside as well as within the U.S.

The needed public support for international work in agriculture will not come until there is more widespread knowledge of the stake that the citizens of the states and nation have in this work. Developing general understanding of economic forces and political processes on a worldwide basis is not an easy task. Nevertheless, this task remains for the educational leaders of the country to take on their shoulders and perform.

There is potential in universities working cooperatively to strengthen their international work. The experiences of universities with institution building projects in India is an excellent example of the benefits from cooperative efforts. There is considerable interest in universities banding together in consortia to conduct technical assistance efforts, but there is insufficient experience with agricultural projects to conclude that the consortium arrangement is likely to alleviate the basic problems in the organization and implementation of A.I.D. contract projects. However, from experiences to date, one can argue for better exchange of information and sharing of experiences so that the lessons learned by one university can be shared with another. There are also definite benefits for both A.I.D. and for those universities working together in a particular country to meet together, discuss areas of work, define responsibilities, establish objectives, and resolve questions and problems.

The establishment of the International Programs Office of the National Association of State Universities and Land Grant Colleges has clearly proved to be an effective means of improving communication among the universities and providing liaison between the university community and various agencies of the federal government. Interviews of faculty members and administrators at various levels on thirty-two university campuses clearly show the need for much greater interchange of information regarding the international work of different universities. This International Programs Office has definitely provided for better exchange of information among university administrators; however, much of the information disseminated by this office is not well communicated to department level administrators and faculty members within universities.

The present informal association of university directors of international agricultural programs is proving to be an effective means of sharing experiences and improving the administration and implementation of A.I.D. contract projects and other international work. This group first met in 1965 and has held an annual conference since that time. This association would be strengthened with a more formal organization and means for financing its activities.

To conclude, the following are urgently needed to strengthen the capabilities of U.S. universities in their overseas and on-campus international efforts:

1. U.S. universities should more clearly identify their respective roles in the various aspects of international affairs.
2. U.S. universities should assume an aggressive role in developing public understanding of the stake of U.S. citizens in economic and social development of the less developed countries of the world. It is only from widespread understanding that the necessary commitment and dedication of personnel and other resources will flow.
3. Means for additional funding that will permit long-term planning and security in staffing for university international work are essential if domestic programs are to maintain excellence and overseas programs are to have the services of those best qualified for international service.
4. A.I.D. in its organization and administration should more clearly identify the distinct place of technical assistance in U.S. international affairs and the role of U.S. universities in technical assistance.
5. Universities should fully exploit the opportunities in both informal and formal cooperative arrangements in order to strengthen their on-campus and overseas international programs.

Development of the Project

VI

92/93

Precontract Planning and Review

"In the language of the day, we need to develop a strategy and a systems approach, learning what the critical factors are, how to fit them together, what substitutability exists, and what sequence is optimal, and what time is realistic," a university administrator commented about U.S. universities' problems in institutional building programs abroad during the last five years. This observation implies that the universities have not prepared fully for the most effective performance of this task.

This section examines the fields of preproject planning and project review in order to determine the extent to which the necessary steps have been taken in the past to assure effective project implementation later. If the tasks quoted above define the major prerequisite for efficient performance, it is reasonable to expect that the preproject planning and review could achieve many of these objectives.

Sources of Data

The following sources were explored in order to learn as much as possible about project planning in the past, and examine how much it has or has not contributed to effective project development:

1. An intensive study was made of forty-two precontract survey reports made by representatives of U.S. universities before accepting a contract to help develop, for the most part, agricultural universities abroad.
2. Special study was undertaken at ten project sites where U.S. university contracts had been terminated. An attempt was made to determine the extent to which effective or ineffective precontract planning and reviews contributed to the successes and failures of project operations.
3. Extensive and intensive interviews were held with host country university personnel at each institution and with A.I.D. representatives when they were available. Interviews also were held with people at four U.S. universities who had been abroad as team members on A.I.D. contracts.
4. Two institutions were studied intensively and nine others were studied in general terms to determine how well the characteristics and behavior patterns of the land grant philosophy had been developed as an integral part of the host university. Attention was focused on the role which planning and project reviews played in institutional development.
5. All available reports prepared by the American university

94

personnel upon completion of their foreign tour of duty were examined to see if they acknowledged contract planning or reviews as a meaningful force in guiding project developments.

6. Contract termination reports were studied to see if any recognition was given to planning and review as factors that influenced project development.

7. Two special reports of this research project were analyzed, with respect to the preproject planning done by representatives of A.I.D. and India which laid the foundation for the planning of projects by teams from the universities (8 and 10).

Before analyzing what these sources revealed about the nature and the extent of project planning and review, it is important to be aware of the different kinds of planning done by various groups of persons to achieve quite different ends. The first type of preproject planning is a general assessment of the agricultural conditions in the country by representatives of A.I.D. and the host government. Attention is given to the work being done by the colleges of agriculture if there are any. The need for improving the institution's ability to help resolve agricultural problems and increase the nation's productive ability is considered. These investigations become the rationale for the host government's request for a technical assistance project in which A.I.D. secures the services of a U.S. university to help develop the host institution.

If A.I.D. reacts favorably to the request for assistance, an agricultural university in the U.S. soon becomes involved. One of its first steps is to send a survey team to the host country to make a precontract study. This study, if properly done, refines and redefines many of the items considered earlier by the A.I.D. and host government personnel. The university team also considers many additional factors which help develop minimum consensus and understanding about goals, strategy, inputs, timing, transactions, linkages, reviews, and evaluations. Such considerations are part of the base upon which effective implementation can develop.

The sources of data listed above were examined for answers to the following questions:

1. What has been the nature and extent of precontract planning?
2. Were such activities done in accordance with the best information available in the fields of behavioral science and institutional development?
3. How did the presence or absence of effective planning and review influence the efficiency of project operations?
4. What lessons have we learned?

5. In the light of these lessons, what new patterns of planning and review might make a greater contribution to project effectiveness?

Precontract Survey Reports

An analysis of the universities' preproject survey reports revealed a number of things that have a bearing on project implementation.

1. The reports were prepared and signed by representatives of U.S. universities, who, it was felt, would be involved later in the implemented projects. The survey work usually involved two to eight persons representing the U.S. university. In most cases the numbers were four or less.
2. The investigating team interviewed a significant number of key host country government or university personnel who were strategically interested in the university development program.
3. The survey party traveled extensively and became reasonably well-acquainted with the agricultural problems of the country and the existing physical and personal resources at the institutions where programs were to be developed.
4. Sometimes the preliminary planning team collected data and information about certain features of the educational system which enabled them to make comparisons with standards in developed countries.
5. In a few cases this appraisal described materials and space available in the library, available experimental farm facilities, and the number of research staff. In a few cases, mention was made of available equipment.
6. Usually the lack of trained personnel was noted, but only in the broadest terms. The need for additional physical equipment and material to meet minimum requirements was often mentioned in some detail.
7. Most reports gave some consideration, in general terms, to the need for revision of the curriculum and the improvement of teaching methods and research procedures. Seldom was there any further mention of these items or discussions about how they would or could be changed under the project.
8. Considerations or analyses of the many non-material features of institutional development were conspicuous by their absence. In the ten- to forty-page preproject reports, only very little attention was given to any aspects of institutional orientation and purpose, developmental plans, proposals, or obstacles that would be involved in the institutional development.

It was clear from the reports that the precontract investigators did not have adequate opportunity to understand the general cultural patterns of the country, or to analyze with host nationals the implied impact of the land grant principles on the essential value systems, norms, and patterns of human relations of the host institution or in the country. These issues were spoken of in a very generalized fashion, if at all. There were only superficial attempts to relate institutional plans to actual country needs.

Mention generally was made of the need for better teaching, more significant research, and new extension programs, but only in very broad terms. It was evident that the dialogues with host nationals centered largely on the development of a technically competent staff and physical resources which could become the base for later implementing the social and political aspects of an anticipated but unarticulated institutional development plan. Only three of the forty-two precontract survey reports suggested that any attention was given to the more subtle aspects of institutional development in the precontract planning activities.

There is little evidence in the great majority of the precontract surveys to indicate that host country nationals, professional or otherwise, were given the privilege to concur or disagree with the material contained in the reports. This meant that the precontract reports were largely unilateral. They principally represent the thinking of U.S. personnel about what needed to be done. There is much evidence that host country professional personnel were included in preliminary discussions and undoubtedly had the opportunity to express opinions, but these were seldom presented in the U.S. reports. In fact, the reports left an impression that dialogue with host nationals primarily involved those known to favor the project and, therefore, the reports do not present adverse or alternative views which could at least guide contract team members later. This is particularly true regarding any new role in the nation for the host institution.

Thus precontract surveys and reports have been deficient in three important respects. They have not explored with host nationals the full implication of introducing land grant principles into their institutions; they have not examined in sufficient depth and detail the full institutional requirements of the country; and they have not recorded the full range of reaction of host nationals to the proposed institutional changes. Therefore, the precontract reports prepared by U.S. university personnel have primarily served to assist the U.S. universities in deciding whether to accept a particular responsibility, but they have not been very useful in other areas that should have been affected. Project reviews, as a possible device to improve project development, were mentioned in only a very few reports, and even then it was only in broad general terms and very briefly.

An intensive study of developmental programs at ten universities and the corroborating evidence from others indicates rather clearly that little progress was made in spelling out any strategy or systems approach in the preproject planning. Little attention was given to the critical factors involved or how to fit them together. Little attention was given to sequence or effecting timing of operations. Project reviews were very seldom mentioned.

Views of Returned Team Members

The end-of-tour reports completed by the team members usually gave a detailed account of the things that the team member did during his tour of duty. Conspicuous by their absence were any references, in the sample of reports reviewed, as to how the work of the U.S. university staff members fitted into the overall strategy or systems approach of the team's program of institution building. There seemed to be no awareness or consensus among team members as to what the critical factors were in institutional building, how they should be fitted together, or in what sequence. The same conclusions were drawn from interviews with returned team members.

Host National Involvement in Preplanning

At each institution where an intensive investigation was made, long individual interviews were held with ten to twenty-five host nationals. At seven institutions, no one below the administrative level of dean who was interviewed had been consulted in precontract planning or was involved in any of the precontract survey work. No one interviewed was aware of a single project review in which a broad basis for future program development was developed.

Too often this resulted in the staff's understanding little or nothing about the proposed project or how its goals should be achieved. The same observation could be made about the ministry personnel, legislative groups responsible for funding university activities, and representatives of agricultural industries. It is the non-university personnel, however, who will be affected by the intended changes in norms, and their concurrence should be enlisted in preproject planning to help insure project success.

It was frequently mentioned by host country nationals in the university, the ministry, and the private sector that when terminated projects were first started, everyone was happy at the prospects of help from the U.S. They had a high regard for the United States and were extremely pleased that U.S. universities should be interested enough in their welfare to provide professional personnel and dollars to help them build national institutions. But they had no clear insight as to what these new institutions would be, what roles administrators should play, or how the new institutions would influence them and their countries. Project reviews did not answer these kinds of questions nor clarify other problems that arose in the minds of the host staff members.

The only host country nationals who knew anything about the project before it began were a few at the very top of the power structure. Those below merely heard that something was being talked about or was being contemplated. They ask whether many more lower echelon individuals could not have participated effectively in the early discussions and thus been in a position to lend broader support to the planned activities. There is considerable evidence to suggest that much of the poor project performance in many cases was due to the failure to involve most host nationals in the preliminary planning process or project reviews.

The real significance of these omissions or commissions in terms of later project developments is best understood when viewed in the light of some basic social and psychological principles. The professional person at a host university cannot become enthusiastic about new activities or redirect the use of resources at his command, nor can he contribute most intelligently to activities or encourage others to cooperate if he has been excluded from initial discussions of what things are important and how they need to be done. If there are myriads of questions in his mind about things that are being proposed or being implemented, he cannot fully participate in the creative development of a new and meaningful institution. He will not understand how the things that are being attempted can help resolve the many problems. Without the insights and understanding that could result from his active participation in preproject planning and review or being informed of the principles involved, he becomes confused and often disillusioned. Under these conditions, he is likely to become indifferent or even hostile to the things being attempted by a foreign project advisor. He usually tolerates what the advisor does, but he often politely awaits the end of the foreigner's tour of duty.

In summary, each person who is to become involved with a project operation, whether at the U.S. institution or in the host country, should have the privilege, either through preliminary planning or project review, of participating in dialogue that provides understanding of the issues involved and encourages his maximum performance. This means that each should know what activities are anticipated; how they will be carried out; who will do what; in what sequence they will be done; what his responsibilities are and how they should be done; what the jobs of the others are and how they are related to him; and what changes will be expected of him in terms of newskills and new relationships with students, other faculty members, and the public.

An Example of Good Precontract Planning

In one country, it was obvious that good preproject planning had well prepared all those concerned for the later program of institutional development (8 and 10). Two high-level general committees were appointed. The first was a university education commission which was concerned with the development of rural universities to educate large numbers of rural people in the practical, vocational subjects. Its report served as the basis for the formation later of a joint team composed of five host nationals and three U.S. personnel. Its major concern was to explore the advisability and the alternative ways of developing in the host country a series of universities patterned after the land grant model.

A part of the preliminary planning provided an opportunity for the host nationals on the joint team to tour the United States to study general conditions and to discover how the characteristics of the land grant system could be used to help resolve problems in their country. The report and recommendations of the joint team were based on these findings in addition to a thorough analysis of the host country's needs. It was accepted by the host nationals and the U.S. as a basis for a national long-range plan, and it received wide public circulation. It set the stage for the future development of the rural universities patterned after the land grant colleges.

Since the team was bicultural, it could view the host country's problems from different points of view. Differences in opinion existed, but most of them were resolved through discussion. Some major problems were spelled out, and these were broken down into a series of smaller problems which, it was felt, could be resolved as a part of the developing activities.

One of the most significant results of the joint team's report was the passage of legislation in the host country to make possible the establishment of a land grant type university in those states where the people felt it desirable and were willing to pay the costs.

The preproject planning work of the joint team was meritorious and represented a significant example of what can be accomplished in one phase of a well-designed preproject planning process. It laid the necessary foundation for further aspects of preproject planning by representatives of the U.S. universities which could have been developed in much more detail than they were. The seminars and dialogues carried out by the national leaders were excellent for persons in top positions. Somewhat lacking were comparable educational and planning programs at the lower levels where institutional development must occur.

The fine development of one phase of the preproject planning work in this one country has much relevance for other large countries trying to develop agricultural university programs. Many valuable lessons also could be learned and applied in attempts to build an institution to serve the agriculture of a smaller country.

Need for Project Review

The overseas researchers had the opportunity to study nearly all of the active projects. Many had been operating five years or less. Others were older. A high percentage of the projects were encountering difficulties, and some were making very slow progress. In each of these cases, analysis revealed that adequate base had not been established for the project through preliminary planning. Neither had project reviews been carried out and used as a means of building a foundation of consensus and understanding. In cases where preliminary planning was not adequate, it should be possible to establish a better base for operations by comprehensive project reviews by both host country and U.S. personnel. Many areas should be explored and numerous techniques could be used. As an integral part of the project review a joint team might visit some of the more nearly mature projects in other developing nations. Such a team should include representatives of the host university, the host government, the U.S. university, and A.I.D. This procedure would enable high-level project administrators to gain insight into the art and science of institutional building. The visit of a team from one institution to another which has made great progress in developing the essential attributes of a land grant university should take at least a week.

The visiting teams should spend considerable time before the trip planning and deciding what features they should study. The institution which is to act as host should make considerable preparation for the visiting team to ensure that the visit will be profitable. Dialogues, conferences, seminars, visits, and readings should be planned. The visiting team should study conditions in the country and also the problems of the nation which the local institution is trying to help solve. Insights should be sought into such factors of institutional development as goals, attitudes, and commitments of staffs, inputs, strategy, timing, critical mass, transactions, linkages, and other items.

The foregoing considerations raise a number of basic questions about the whole field of the preproject planning and project reviews:

1. What are the minimal ideas that should be considered, and at what depth should they be considered in precontract planning?
2. Who should be involved?
3. How should it be done?
4. How much time is required to plan the broad base which is essential for effective project operation?

The overseas research workers found much evidence indicating that lack of satisfactory progress in project operations was often due to the limited scope and character of the preproject planning and project review. On the other hand, some people caution against trying to plan too far ahead. They suggest that the most important thing is to get the agreement signed, then let the success in project development become the catalyst for change. However, it is not possible for U.S. personnel to build the institution alone. It can only be done cooperatively. Developing new attitudes, greater insights, and more resourcefulness among host nationals are an important part of the task of developing an institution. Abundant research evidence suggests that people find it difficult to accept and participate in patterns of change which they do not understand. The challenge is to develop, through planning and review, the understanding that is necessary for meaningful involvement without creating fear of the anticipated task. The accumulated experience of this research project seems to warrant the following observations:

1. Preproject surveys, preliminary planning, and project reviews to date have been far too limited and restricted.
2. If the activities of preproject planning and project review are to contribute most effectively to project development, more people in both the U.S. and the host country should become involved. The planning and review should provide an opportunity for creating the understanding and commitments that are essential for project operations.

Observations and Guidelines

Understanding the Task. The worldwide research project reveals clearly that one feature seriously limiting institutional development has been the lack of understanding by foreign nationals about what was being attempted in the development of indigenous agricultural institutions with the land grant philosophy. There are several ways in which this difficulty could be overcome. One effective technique might be to hold a series of seminars as a part of the early activities of precontract planning. The seminars or conferences could be conducted by representatives of A.I.D. and host country nationals, and should include such host country nationals as administrators of host universities or colleges and the ministries of agriculture and education, and other appropriate officials. The following topics could be explored:

1. The traditional European philosophy of education.
2. The philosophy of education of the host university.
3. Philosophy of the land grant system which was developed in response to the problems of a developing nation.
4. Problems that would be encountered in attempting to move from a European to a land grant philosophy of a university in the local culture.
5. Changes and contributions that host country personnel, agencies, and governments should make.
6. Contributions of American personnel and resources.
7. Patterns of cooperation, strategy, goals, timing.

A Comprehensive Plan. In the light of the need for better performance by the U.S. universities in overseas technical assistance programs, it seems advisable that U.S. universities which wish to participate in agricultural institution development programs abroad should further develop their capabilities in the field of building institutions to serve the agriculture of the developing nations. In addition to research programs designed to increase our knowledge, a committee might well be asked to prepare a report to guide future action. It should consider ways of making best use of personnel and resources in institutional development; reveal insights into the concept of institutional maturity; provide a necessary basis for making changes in strategy, inputs, and timing as maturity is achieved; consider ways of analyzing country needs; and develop procedures for identifying and circumventing roadblocks to institution building in foreign cultures.

Better Coordination. The overseas research workers often observed poor coordination between the activities of the various entities in institutional development. Steps should be taken in precontract planning and project reviews to help clarify the roles that various agencies should play and how better timing and closer coordination of activities could be developed.

Considering Individuals. The overseas researchers discovered that the average host university staff member understood very little about how his professional role would be changed if the nature of the institution was altered. Such uncertainty created fears in his mind. Precontract planning should spell out the impact that new institutional patterns will have upon the professional personnel. The advantage of the new system should be presented. Dialogue as a means of creating understanding and consensus should be developed. Steps should be taken to obtain the cooperation of the host university personnel in anticipation of the transitions that should develop.

Development of Overall Strategy

Choice of Projects

Deciding on the type of project that would contribute most to a nation's development and on the strategies for achieving established goals is fraught with many uncertainties and unknowns, and the decision makers never have enough information to be purely objective in arriving at the best decision. Jones and Blase (5) undertook to develop a general theory which would identify the elements in producing change and determine how they could be used to guide technical assistance efforts in overcoming the blockage points in the system. They grouped the diverse factors that go into decision-making and action under *will*, *opportunity*, and *means*. Each of these factors must be present in some measure for change to occur, hence this classification provides a basis for locating points in the total system which are restricting development and which merit attention. Some of the factors can be influenced externally but others only internally. These ideas show promise of vastly sharpening our insights and strategies in technical assistance.

In the meantime, however, there is general consensus that agriculture is one of the most crucial sectors of the underdeveloped nations. Furthermore, there is a growing consensus that the development of skills and entrepreneural abilities looms very large as a requisite for agricultural development. Thus, institutions which provide increases in technological information and the personnel capable of producing and using such information receive high priority in virtually every A.I.D. technical assistance program. Hence, considerable study was given to the development of overall strategies for building institutions to serve agricultural education and research.

Institutions Best Suited to Agricultural Development

In most of the projects in agriculture U.S. universities contracted to help or rebuild a host university or research facility. Only rarely did this involve the starting of a new institution or organization. Most frequently there already was an institution which was deemed to need modification, modernization, and improvement in its potential for impact on the host country. U.S. personnel serving overseas normally were inclined to build or rebuild such institutions according to the land grant model. Several people have seriously questioned whether such a model is the most appropriate for each of the developing nations, and this project gathered evidence on this question. The results are presented by first establishing appropriate criteria and then comparing the land grant model against them.

Criteria of Suitability. Several criteria have been proposed to assess the suitability of a host institution to its environment:

1. It must be capable of performing a specified service to agriculture.

If the investment in an institution designed to serve agriculture is to be justified on the grounds of efficiency, the institution must be designed to discharge this service at minimum cost. This implies a sharp focusing on the type of student which must be prepared by the institution, the usefulness of its research, and the effectiveness of communicating research results and other knowledge to the agricultural sector. It further suggests that these services are not unnecessarily duplicated by other institutions serving the same region.

This criterion suggests that there is careful attention to insure that the quality and quantity of secondary school graduates are adequate, rather than establishing a set of standards which completely ignore this factor. On the other hand, this criterion takes into account the country's needs for professional personnel, and it judiciously allocates its efforts within the range of responsibility extending from the accepting of students at the level from which they come out of the lower schools and preparing them as much as possible in a reasonable time for the tasks required by the nation. It further suggests that the institution train enough students to have reasonable impact on the nation's economy in the foreseeable future in order to guarantee continued public support.

This criterion suggests the identification of the most urgent problems requiring research attention and a concentration of enough available resources on these problems that useful answers are forthcoming in reasonably short time.

Finally, if the institution is responsible for the accumulation and formation of knowledge it can only serve the nation if it adequately communicates this knowledge and information to society. It would be highly inefficient for a developing nation to expend much of its scarce resources in the building of a repository of scientific and technical knowledge which had no efficient outlet through which this knowledge could flow to the agricultural sector.

2. The institutional model must be geared to the stage of development of the host country.

It is quite likely that every developing nation aspires to the establishment of a Harvard or an Oxford University which would serve the country in a highly sophisticated fashion. It might be hard to argue against such an institution solely on the grounds of its potential for contributing to the national economic development, but it would certainly be difficult to see how such an institutional model could be made viable within the restrictive supply of human resources. It is even more difficult to see how a developing nation could afford the financial cost of developing and maintaining such an institution. Thus, the feasibility of establishing a highly sophisticated institution to serve the agriculture of a developing nation seems very remote in its early development. A highly pragmatic institutional orientation which can produce needed crop varieties, find ways to eliminate diseases and increase agricultural production is likely to be much more relevant.

3. It must be within the country's financial capability.

If the institution is to serve the country's developing agriculture over a long period, it must be anticipated that it will be supported largely from indigenous sources. A basic test of institutional achievement is the degree to which it is supported financially by its own country. The use of outside funds for the establishment of an indigenous institution is only justified on the expectation that the institution's contribution to society will merit its full support in due course. Cases have been reported where the size or complexity of an institution exceeded the country's financial capability. In some of these cases other institutions competed for the scarce resources, but in others there simply was not enough political momentum within the area to generate the necessary financial backing. Undoubtedly, in such cases it was assumed that financial inputs would be generated in accordance with services rendered by the developing institution. However, if the design itself greatly exceeds the potential for resource inputs, the institutional model can certainly be called into question.

4. The institutional output must be geared to the needs of society.

There are few sights more disheartening than to see a stream of university graduates pouring from institutions of a developing nation and spending up to two years in finding gainful employment in which they could use their sophisticated training and background. Where this has been observed, it was clear that the level of technical and educational sophistication was too high for the needs of the society. There did not exist the necessary undergirding of the more vocationally trained personnel and therefore the higher level of training could not be efficiently used.

The same could be said with respect to research results. If the research output of an indigenous institution is highly sophisticated or theoretical in its implications, a large amount of adaptive research usually is required to make the results useful to society. Therefore, the production of research results which the society does not have the capacity to absorb and use directly represents an inefficient institutional design.

The Land Grant Model. Virtually every contract for institution building has explicitly stated or has implied that the land grant ideas are to be invoked in the technical assistance activities. Each contract or plan of work has given a general description of what this terminology implies, but it has seldom been spelled out in sufficient detail to insure that both host nationals and team leaders are sharply aware of the connotations and essential elements. Thus, when Roskelley and Rigney (16) tried to develop measures of institutional maturity, they had to clearly describe the land grant model as a basis for that work. The descriptive statements, found in the next section of this chapter, refer to the institution's role, its attitudinal orientation, and the resulting type of activities. They do not contain a statement of institutional organization.

It is useful to check the land grant model against the criteria set forth above to see whether, in fact, there has been a gross misapplication in the development of indigenous institutions.

It is generally conceded that traditional agriculture cannot be materially altered without additional external inputs. Technical knowledge about other materials, other crops and varieties, additional fertilizers and pest control exists and it must be brought to bear on the agriculture of the country in question. Such knowledge must be available in a useful form and it must have been tested in the local environment. Such technical information probably will have been produced and adapted by a local agricultural research agency, and communicated to the farmers of the nation through indigenous personnel training in agriculture. Therefore, if an indigenous agricultural institution is to be developed, there is every reason to believe that the land grant orientation is appropriate.

There is much evidence that this explicit decision has been reached by many host governments in considering their own institutional needs. In India, for example, an education commission was appointed in 1948, soon after India gained her independence. This commission seriously evaluated India's educational and research needs, including those in agriculture, and made the following statements:*

> As we have been sending over to the United States some of the chief officials in the Agricultural Ministry and other leaders of the agricultural industry for the purpose of studying agricultural education in that country, and as we have also been sending for some years batches of students on scholarships for the study of various kinds of agricultural subjects like agronomy, animal husbandry, food processing and the study of certain crops common to India and the U.S.A., such as sugar cane, rice, and tobacco, and as many other technical subjects are being studied and experts developed for service to our country, it will be useful to refer to the development of agricultural education in the U.S.A. The results there have been so impressive and so relevant as to justify a brief description.
>
> A full-fledged college of agriculture should, in our opinion, be able to make provision not only for instruction and practical training, but also for research and extension work. It should endeavour to establish itself as the leader in progressive agricultural practice of the surrounding countryside. It should apply itself to the problems of the immediate neighbourhood and attempt, by its own extension work, to carry the results of its investigations to the peasantry around. This alone can make the instructional and research sides of its activity more realistic and fruitful than they generally tend to be.

Similar decisions were reached in most of the other developing nations where technical assistance is being provided. Thus, the data available on the suitability of the land grant model is largely in the form of widespread opinion and decisions arrived at by leaders of the developing nations after considering their developmental and institutional needs. There is little to suggest that this model would not produce an institution capable of performing the desired service to society.

There is, however, much evidence to suggest that the institutions being assisted were generally not the only institutions in their nations performing similar functions. In India, for example, the seven agricultural universities receiving technical assistance represent less than one-tenth of the agricultural colleges in the nation. In Peru, one institution is receiving technical assistance out of sixteen which are offering university-level work in agriculture. This is the situation in most regions of the world except a few African countries. The institutions which are not receiving outside technical assistance are nonetheless serious competitors for local resources and support—a phenomenon that is quite unfamiliar to land grant traditionalists from the U.S.

---

* The Report of the University Education Commission (Dec. 1948-Aug. 1949), Vol. 1, pp. 182 and 201, published by the Manager of Publications, Delhi.

The competitive and political aspects of research are perhaps even more difficult, since this is a function of the ministry of agriculture in almost every developing nation. Similarly, the nation gives a ministry rather than a university agency responsibility for communicating technical and scientific information to the agricultural community.

It was pointed out above that the land grant model does not specifically carry an organizational implication, although the organizational structure of present day land grant institutions in the U.S. has been a feature of the transplanted land grant model in many institution building projects. The organizational structure is the aspect most easily comprehended by officials from the developing nations, and it has the most apparent implications for their own institutional development. U.S. advisors have generally insisted that teaching, research and extension should be administered within the same general framework, and this has provided one of the greatest sources of irritation and has prejudiced the political and financial support of agricultural universities perhaps more than any other single factor. This is, in fact, the point at which the land grant model has been called into question so frequently in the technical assistance effort.

An objective review indicates that these difficulties have arisen from an inadequate understanding of the land grant model, primarily by U.S. advisors. Both A.I.D. and university contract persons have been weak in their understanding of the history of the development of the land grant colleges in the U.S. The developing nations have not adequately analyzed the gains to be realized from combining the three activities under a single administration versus the political costs involved. Political stability in the developing nations is poor at best, and an agency such as the ministry of agriculture must do all it can to retain public acceptance and to offset the unpalatable regulatory duties which it must perform. Therefore, the very attractive services of agricultural research and extension are highly prized by ministries throughout the world. They are reluctant to pass these responsibilities over to a university, particularly if that institution can do no better than the ministry itself. Thus when a technical assistance group encourages a university to try to wrest from the politically powerful ministry of agriculture two of its most highly prized functions, it foments a political power struggle which cannot help but damage the university's ability to attract political support. This aspect of the land grant model perhaps has been less carefully interpreted and in some cases unwisely transplanted by technical assistance personnel. There is evidence from virtually every project in which U.S. universities have been involved that this has been a chief obstacle to the host institution's development. It is unfortunate that alternative administrative models have not been experimented with more imaginatively by U.S. university teams.

In summary, the dedication, orientation, and problem solving ability of the land grant model are quite appropriate to the agricultural institution needs of the developing nations, and should continue to be the leading edge of the technical assistance institution buliding effort. Much greater attention should be given, however, to political implications in determining the organizational relationships between teaching, research and extension than has been done. The allocation of administrative responsibility for these three functions must be designed to attract strong political support as well as to use the scarce human and financial resources most efficiently. An optimum administrative organization must be carefully negotiated and tailored to existing conditions, not forced by outside pressures.

Level of Technical Assistance for Optimum Development

Several factors must be considered in determining the most appropriate amount of input for a project. The most important seem to be: (a) it must reach at least a "critical mass" level of operation, (b) it must satisfy the urgency of time for development, (c) it must be properly related to the host institution's own input, and (d) it must allow the development of a truly indigenous institution.

Critical Mass Concepts. The critical mass theory indicates that unless enough is put in to achieve a minimum level of reaction, the process cannot become self-generative or self-perpetuating. It is, therefore, generally conceded that a project must be supported at least to the critical mass level or it should not be undertaken at all. Many instances were observed where a critical mass level of input was not effected and the rate of institutional development was correspondingly disappointing.

The question of critical mass input, however, involves not only the overall level of project support but also concentrating the effort within projects to single departments or faculties in order to achieve localized critical mass levels. For example, in one project the college of agriculture was reluctantly transferred by the ministry of agriculture to a new quasi-autonomous university. Three years later there was general complaint that the institution was not appreciably better in any single department. In other cases the input was restricted to one or two U.S. professionals, but in their particular area genuine progress was made. To be sure, various aspects of the entire institution must be developed more or less simultaneously, but a few outstanding successes provide institutional visibility which greatly enhances total institutional support. Much still needs to be known about this approach. For example, what is the minimum number of departments that must be affected to be sure that internal diffusion will take care of the rest, and how are the unassisted departments to be placated in the meantime? These issues can be as vital to the total project outcome as many other decisions.

One great problem in institution building is to increase the input from local resources. These increases are usually awarded on the basis of visible improvement in productivity. Rarely can the host institution expect to receive across-the-board increases in support until it has shown general improvement in management and productivity with the scarce resources it already has. Thus, individual departments or faculties which produced attractive research or whose students were highly prized by the public have found it possible to get either public or private support for increased activities. This would suggest the application of critical mass principles to the subunit of the host institution.

The evidence, therefore, indicates that the best strategy is to concentrate total project resources in a small enough number of subunits within the institution to ensure that each one which receives attention can develop relatively rapidly and particularly attract early increases in local support.

The Urgency of Time. The importance of showing early results is held as strongly by host governments as it is by A.I.D. They find, for example, that political instability makes it virtually impossible to sustain a high level of support for a developing institution for much longer than two or three years. Therefore, political as well as economic considerations dictate the urgency of making impact level inputs wherever technical assistance is provided. This involves commitment of host institution resources as well as technical assistance inputs. It was a common experience to find persons outside of the host institution who had become completely disenchanted with the relatively slow rate of development of the institution. They were initially strong supporters of the institutional projects but lost faith and hope after two or three years of unspectacular institutional development. This problem is encountered universally, but it is particularly acute in the unstable political environment of many less developed nations.

Also, the earlier a university's products and influence are made available to society, the earlier agricultural development will be stimulated. Since most other elements of the developing economy intimately depend on agricultural development, there are obvious costs to the entire economy in delaying institutional development. The mere fact that production of better technical personnel or better research results requires a long time underscores the urgency of employing every feasible accelerating device. These considerations again underscore that adaptive research should be an important part of the early efforts in institution building.

Absorptive Capacity of the Host Institution. The basic purpose of technical assistance is to accelerate the development of the host institution along certain lines. The best level of input from external sources hastens the time when the host institution can become entirely independent of outside influence. Thus, if technical personnel are supplied at a level and in a manner which precludes the commitment of host institution resources to the training and employment of its own personnel, it clearly is not operating at the best level. The best level would maximize the host institution commitment and investment of its own resources in its development.

There has been considerable debate over the advisability of providing technical personnel to perform teaching, research, or administrative functions which eventually must be discharged by host nationals. In many countries in Africa and a few in other parts of the world, there was little alternative to starting the development of university-level institutions and research organizations with foreign personnel. There simply were not enough host nationals adequately trained to fill the necessary positions. In many underdeveloped nations, however, the situation is not as clear cut, and here it is important to examine carefully the capacity of the host institutions to absorb external inputs.

In Chapter VII a strong case is made for having U.S. personnel participate actively in the programs of the host institution. The emphasis there, however, is to help the institution building activities, and considerable caution is urged for not doing things which would diminish the pressure for the host institution to become highly competent and committed to taking over these activities as soon as possible. In this study only a few cases were reported where U.S. personnel performed services for which adequately trained host institution personnel were available. In most of these cases the U.S. personnel were continuing a function which was important to the project earlier but which was no longer an efficient use of technical assistance resources. The important thing is that the efforts of the U.S. personnel must be sensitively managed to achieve the most impact. This underscores the need for well conceived plans and strategy and for continuity in team leadership to ensure their timely execution.

The same considerations apply to the inputs of cash and commodities. Host institutions continue to plead for the investment of funds with no strings attached. Such resources give them freedom and flexibility of action and relieve them of the responsibility for making unpalatable decisions in the commitment of their own resources. Thus, they would be happy to support a new activity or a new method if they could do so without diverting their current meager resources. This is one of the unhappy consequences of the competitive relationships between U.S. technical assistance and multi-national assistance sources. Host nationals early learned that they could play one off against the other and thereby avoid the hard decisions of giving priority consideration to those programs to which they were willing to commit their own scarce institutional resources.

Thus, many white elephant projects are found scattered over the technical assistance landscape as monuments to technical assistance inputs which exceeded the host institution's capacity to absorb them in a meaningful institution building context. Some of these of course were supplied for political expediency but most represented current judgments of institutional needs.

Created in Their Own Image. One of the most frequent criticisms of the technical assistance program is that it tries to build institutions which look exactly like those in the U.S. Such development injures the nationalistic pride of many host nationals and compromises the institution's capacity to attract local support. Many projects assumed the overall image of the U.S. university contractor simply because this was the only pattern known to the U.S. advisors who, by virtue of their numbers and their control over the other technical assistance inputs, carried undue weight in influencing the host institution's character. In fact, one project report bragged that the host institution curriculum was now exactly like that at home. It is quite natural for this to happen if the rate of technical assistance input in the early years of the project overwhelms the inputs from the host institutions. Considerable stress was given above to the importance of developing institutions that are capable of bringing modern science and technology to bear on indigenous agriculture. It should be emphasized, however, that if the institutions are to be supported locally they must also be responsible for protecting and propagating certain local customs, values, and social institutions. There is much evidence that if technical assistance projects had been designed to start slower but had been allowed to gather momentum as experience and insights were gained and as appropriate norms and guidelines evolved from serious host institution involvement, there would have emerged institutions which looked much more as though they belonged to the developing nations.

In summary, it is clear that the total level of input into a technical assistance project should be much more carefully geared to needs of the project than has been customary. The investment must be large enough to achieve a critical mass effect or it should be withheld entirely. The support must be great enough to ensure a rate of institutional development that will attract indigenous support, but it should not be so large as to diminish commitment of indigenous resources. It should also start slow enough to permit it to retain an indigenous rather than a foreign image.

Ratio of Commodity versus Participant Training versus Technical Personnel

Warnken (18) points out that "once a decision has been made to assist a specific institution, the question then becomes one of applying technical assistance resources so that (1) these resources are efficiently utilized, and (2) their impact on the host institution is maximized." A.I.D. missions have been aware of the inadequacy of their rationale for determining the appropriate mix and timing of inputs, and some of them have experimented with flow-chart and other planning procedures for improving the situation. Some effort was made in this project to gain insights on the optimum ratio between these three major inputs, and how that ratio might shift through time for best results.

Historically, commodity purchases were highly prized by host nationals and they tolerated technical personnel as a corequisite for obtaining equipment and supplies. The participant program also was highly prized in the technical assistance effort, but its proper role in institution building was inadequately appreciated in the early days. There was the feeling that it would be enough to give participants a very light exposure to modern science and technology and to depend upon U.S. advisors to accomplish the rest at the host institution.

The evidence accumulated from the past fifteen years suggests that in the early stages of institution building it would be highly productive to give the greatest emphasis possible to the participant program. This would require a much more imaginative and aggressive approach to such difficulties as language barriers and keeping the host institution going during the participant's absence. It would also require the presence of a few U.S. advisors to help select, train and orient the participants.

The U.S. advisor in institution building was obviously more effective when he worked with counterpart personnel who had received a reasonable amount of training abroad. The technical assistance was less efficient when the advisors spent their time bringing host nationals up to a point where they could successfully do graduate-level work in the U.S. The least effective role for the advisor, however, was found when he was replacing counterpart persons at the host institution who were away on training.

Similarly, the major inputs of commodities early in the project tended to be relatively inefficient contributions to institution building. The items purchased early were seldom what the programs later needed. Furthermore, they were placed in the irretrievable custody and control of persons who were important in the institution at the time because of their political affiliation but who seldom rose to the top in the institutional development. Hindsight again suggests that withholding major commodity inputs until personnel are trained and programs are more clearly outlined would make the technical assistance much more efficient.

The above evidence indicates that early in their development institutions need mainly participant training, with a moderately small input of technical personnel and a very small input of commodities. The mix ideally would shift gradually toward a high proportion of long-term technical personnel midway in the institution building process when there were more qualified host nationals. The mix would continue to shift in proportion as the institution matures, so the greatest input would be in the form of commodities and short-term, highly specialized technical personnel in the last stages of technical assistance. Thus, what now seems to be an optimum approach to the mix of inputs is just the opposite of what has been done during the past fifteen years.

In summary, it is clear that the form of technical assistance inputs should be flexible and should conform to the stage of maturity of the host institution. The early stages should concentrate heavily on participant training, the intermediate stages should include a high proportion of long-term advisors, and the final stages should focus on commodities and short-term, specialized advisors.

Criteria and Procedures For Measurement of Institutional Progress and Maturity

A.I.D. missions and U.S. university contractors are required to examine their projects annually with a view to determining the degree to which initial objectives have been achieved and to estimate a probable date when the project can be closed out. One difficulty in the operation of institution building projects is the problem of measuring progress in terms that are meaningful to the administration of the host institution and the technical assistance agencies. The problem becomes increasingly important as the project matures and decisions must be made as to whether to radically alter the type of input of technical assistance or to phase out the project.

Previous Experience

In a number of cases in the past, particularly in the Far East, such evaluations have resulted in a decision to terminate the project on the grounds that the institution was mature enough to accomplish the project's purpose. Other projects were terminated because it was felt that progress was unsatisfactory. A review of the terminated projects in agriculture in that region was made to determine in retrospect whether maturity had been achieved. The results of the findings were as follows:

1. Even though progress had been made in some aspects of institutional development, few of the institutions had achieved the kind of overall maturity that was essential for them to sustain a dynamic, self-generative level of performance. It was questionable whether they would be able to make meaningful contributions during the next decade to the economic, social, and political growth of their countries.
2. The criteria used to determine institutional maturity were clearly inadequate. The decisions to terminate projects were made on the basis of achievement in physical characteristics such as numbers of buildings, faculty, and students, but they did not take into

account the changes in the leadership, doctrine, structure, transactions, or linkages with segments of the host country which should have been developed.

3. Most of the institutions experienced a traumatic interlude after the assistance contract was terminated that was characterized by retrogression and loss of competence rather than sustained growth.

4. There was much evidence that neither the U.S. nor the host country would realize the potentially significant dividends from the money, manpower, and professional skills which were invested in the institution building programs unless additional inputs could be made in key areas where little growth had occurred.

5. There were many indications that it was not in the best interest of the U.S. to terminate the projects when many key aspects of the institution were still in the early stages of maturity. In many cases, this left a residue of bitterness and disappointment rather than the desired attitudes of appreciation and confident internal initiative.

Experience in these projects, as well as in several others in which it is thought that the institutions are currently approaching some degree of maturity in some areas, adds a high degree of urgency for additional insights into the relevant characteristics which must be observed in judging institutional progress and maturity.

Very little research effort has been made by A.I.D. missions to devise reporting systems which would meaningfully indicate progress in institutional development. One rather comprehensive effort was made in which A.I.D. asked team leaders to estimate the stage of development in the following categories:

1. Administration—Adequacy of laws, statutes, and regulations; effectiveness of a board of management; and the adequacy of key administrative and academic officers.

2. Physical facilities — Adequacy of professional buildings, staff housing and hostels; stage of campus development; adequacy of local equipment.

3. Academic programs—Degree of conversion to modern teaching; numbers of teachers, students, bachelor's degrees, and advanced degrees.

4. Extension activities—Training of personnel; coordination with research and teaching; percentage coverage of the state; numbers of directors and subject matter specialists.

5. Research activities—Percentage of total state research responsibility; number of main and regional stations and acres available; numbers of directors, assistant directors, research specialists, and part-time teachers doing research.

6. Library—Number of books and journals, and rate of student use.

The resulting evaluations were felt to be inadequate, however, for several reasons. In the first place, the judgments were quite subjective and lacked a basis for comparison between projects. More importantly, they did not document the feel of excitement, energy, and progress; or, conversely, of despair, lethargy, and traditionalism which characterized the institutions. They did not provide a basis for knowing whether the institution was moving philosophically and organizationally toward a problem-solving, service-oriented land grant type or toward the classical European type, since the increases in numbers of Ph.D.'s, volumes in the library, and numbers of classrooms could qualify for either. Finally, they did not provide the decision makers with an adequate basis for altering their strategies to increase the efficiency of technical assistance.

Criteria for Maturity of a Land Grant Type Institution

The criteria used for measuring progress and maturity in the development of an institution must conform to the role that is visualized for that institution. It is presumed that each developing nation will visualize its institutional needs in terms of its own cultural, economic, and educational stage of development, and various criteria will need to be established against these objectives. In addition, in all of the institution building projects in agriculture supported by A.I.D. the objective is implied or specifically stated to be the building of a land grant type institution. The criteria for progress in this dimension were developed by two researchers on this project (16) in terms of the important, distinguishing characteristics of such an institution:

1. The institution conceives of its role in society as serving the rural community. It will be specifically organized to educate youth and train them specifically to deal with the problems of rural people. It will engage in problem-oriented research with high priority being given to the most urgent agricultural problems of its region. Its faculty will feel a keen sense of purpose and dedication to resolving the problems of the rural area and to communicating the solutions to the agricultural community. Thus their professional purpose in life will be primarily to serve the rural people.

2. The service orientation, the devotion to the solution of important agricultural problems, and the keen desire to train students in this philosophy automatically generate a bond of common purpose between professor and student that concentrates on this orientation

and dedication. This results in a style of teaching which enables the students to identify important problems and to proceed confidently in their solution. The teaching program tends to incline much more toward practical problem solving, and an understanding of theoretical and basic sciences is given this purposeful orientation. Typically, the teaching programs involve the students in considerable field work, where they physically come in contact with problems and their solutions and where they learn by doing.

3. The motivation and incentive for individual staff members derive in large measure from a sense of satisfaction of having served the rural people well. Therefore, acclaim from farmers and their families becomes an important feature in the set of values of the professionals within a land grant system. Increasing agricultural income and production become the driving force, and publication of results in prestigious journals is considered only a useful by-product. New science and technology will be sought and developed as the developing agricultural society requires for its continued advancement.

4. The rural people generate public support for the land grant type institution commensurate with its public service. Thus the land grant type institution is supported from the public sources because it provides service, and not just because it is a mark of cultural distinction.

5. Since the institution's existence is justified on the basis of its production of useful people and useful information, the internal administrative attitudes and relationships reflect this purpose. Thus the institution's administration understands its role to be that of facilitating productivity of the staff members, instead of regarding the staff members as existing to enhance the prestige and to serve the administrators.

An institution which develops the above characteristics can properly be said to be patterned after the land grant model. The perfection of these characteristics and their expression in behavior patterns and operating principles are criteria of maturity.

Measurement Variables

The specific variables to be measured will differ somewhat with the full set of criteria established for the particular institution. In general, however, it appears that agricultural universities in the developing nations could be adequately evaluated from measurement of the variables used in the A.I.D. study mentioned above, plus variables specifically chosen to reflect the degree of institutionalization of the land grant characteristics outlined above.

The important variables that need to be added in measuring progress on the land grant model are:

Teaching. Teacher's attitude toward his major function, relationships with students, and execution of this function; teaching methods employed to achieve objectives; and relationship of subject matter content to the country's needs.

Research. Volume and productivity of research, proportion of projects directed to high priority problems, and capability of staff for documenting country's needs.

Extension Education. Definition of extension function by the university; identification of priority activities with country's needs; coordination with other agencies: improvement of system (organizational self-improved activities); use of such principles and processes as group dynamics, local leadership, and community organizations; and focus on best technology.

Administrative Incentives. Stimulation of professional improvement recognition and reward for excellence, delegation of authority, sharing in making professional decisions, effective use of controls, and development of public support.

The following rationale was used as a basis for the preparation of the specific instruments in the Near East and South Asia region, and it is useful in understanding the land grant variable outlined above:

Teaching

Teacher's Attitude Toward His Major Function. In the typical university classroom of the developing nations, the professor appears before a class for about an hour and reads from his personal notes part of the material to be covered by the course. There are no textbooks, no outside reading, no class discussion, and no other activities designed to stimulate the student to acquire more factual information or alternative insights than what is in the lecture. Frequently, student performance is evaluated by external examiners whose only contact with the classroom experience is a syllabus which is formally registered with the administration. Under this system, the teacher's function is assumed to be the oral imparting of all of the factual information which the student will need for adequate coverage of the topics.

An alternative view of the function of the teacher that is widely held in the U.S. is that the teacher is the stimulator, the guide, and the interpreter in covering the topics under consideration. He may cover a reasonably large portion of the material, but he seldom considers his own presentations as more than a small fraction of the total material that is brought to the attention of the students. Between these two extreme points of view is the continuum along which progress is to be measured.

Teacher's Relationships With Students. The prevailing relationship in the developing nations is characterized by a rigid and formal attitude imposed by the professor. He poses as the authority in his field and does not permit questioning, amendment, or deviation from his points of view. Therefore, class discussion is allowed only for clarification of a point presented and not for critically examining alternatives or stimulating thought among students. This authoritarian approach is designed to maintain order and discipline, but it may be used as well to protect the inadequacies of the teacher.

The progress to be measured relates to how conducive the teacher-student relationship is to study, inquiry, and thoughtful scholarship by the student as opposed to an insistence on the professor as the sole and ultimate authority in the area.

Teacher's Execution of His Function. It is difficult for a teacher to break with tradition in establishing a new relationship with students. This is one point at which traditionalism lays its strongest claim, and it is generally broken first by the younger and more innovative teachers. Institutional maturity is not achieved, however, until a significant number of departments within the university have succeeded in establishing a new tradition. Most of the institutions operate on a semi-democratic basis in establishing or orienting internal policies. The level of achievement necessary before the institution can be regarded as mature enough to proceed under its own internal resources is debatable, but certain minimum guidelines can be considered. This would suggest that at least fifty percent of the departments must share the modern view before the "critical mass" level has been achieved. Alternatively, it might be regarded as sufficient when the important decision makers within the university have accepted this viewpoint. The estimates in this chapter represent the best judgment of the writers. There have been no studies to indicate what level should be achieved within any department before it can be said that it has the necessary viability for further self-development toward the land grant philosophy. Until this figure can be determined by experimentation and research, it is recommended that people involved in the evaluations of maturity try to arrive at an estimated level through seminars and dialogues with interested persons. Such figures should be established for each of the major fields considered in the evaluation of maturity.

Methods to Achieve Objectives. It is not likely that the new perspectives in teaching can be achieved by following the old format in the classrooms. New methods of presentation, stimulation, examination, and certification are indicated. The best methods available to a particular institution will depend largely on its own resources. For example, it can only make outside assignments for reading and the preparation of term papers if there are reasonable library facilities available. The alternative is a widespread use of mimeographed educational material and similar items. The relationship between teacher and librarian is of key importance in using to the fullest the limited library resources. The availability and use of audiovisual material depends not only on the institution's possessing a slide projector, but also on the policies of servicing the equipment, of providing relevant material for projection and of the use of such material in the course work. Thus, in measuring progress it is necessary to inquire into the institutional attitude toward new methods and procedures and the initiative employed in making them useful and relevant, as well as the actual success achieved in their introduction.

Relating Subject Matter Content to the Country's Needs. There is an assumption in the land grant model that the basic sciences are taught specifically to increase the student's capability for coping with important problems of the country. It therefore becomes important for teachers of these courses continually to relate their subject matter to important problems. In courses such as chemistry, physics, and biology this may be only in an illustrative fashion. In the more applied courses, however, a fairly broad coverage of the major issues in that particular field is indicated; therefore, measurement of progress in this area must inquire into the degree to which subject matter in the individual courses is related to the country's needs.

Research

Research Productivity of Individual Staff Members. The land grant model suggests that individual staff members of the institution are possessed with a drive to learn as much as possible in their field and to find ways to bring this to bear in resolving the problems of the rural areas. Therefore, a measurement of the research energy and activity of individual staff members provides a clue to the progress toward the land grant model. Research activity in this category can be interpreted rather broadly so long as it reflects the essential attributes of an inquiring and dedicated mind. It could extend the full range from purely bibliographic study, through adaptive experiments, to more basic research.

Proportion of Projects Directed to High Priority Problems. If a country has limited human and financial resources for conducting research, it must use many of these resources in introducing and adapting existing science and technology. The creation of new knowledge receives high priority only in problem areas which are shown to limit national agricultural development; therefore, there is a need to measure how much of the institution's research effort is directed to problems of high priority in the country's agricultural development. These are known as "pay dirt" projects. There is no clear indication of the best percentage for such projects, but it is assumed to be more than seventy-five percent.

Capability of Staff to Document the Relevance of Projects to the Country's Needs. It is not reasonabl to expect that young, newly trained professionals will automatically have a clear understanding of the major problems confronting the nation's agriculture; therefore, they would not be able to prepare a project which is effectively oriented in this respect. There are, however, many sources of assistance in this respect, such as the director of research, various persons within the national ministry of agriculture, and people in private business or external agencies. An important measure of institutional maturity would be the degree to which the views of those outside the institution are taken into account in the commitment of research resources.

Extension Education

The Concept of Role and Function of Extension. The development of an agricultural college's concept of its role and function in extension frequently has involved a power struggle between the emerging university and the vested interests in the ministry of agriculture. Ideally, these two institutions should engage in sufficient dialogue to develop a consensus on the role which each should play in extension education. One measure of maturity must encompass how well the institution has worked out these concepts for itself and resolved them with the ministry of agriculture.

Identification of Priority Activities With the Country's Needs. A developing nation cannot mount sufficient resources in extension education to adequately cover all of the ideas which are advanced from within or outside the institution; therefore, serious choices must be made in committing extension resources to activities which deal directly with the high priority problems of the country.

Failure to do this will result in inefficient use of the country's other public resources.

Coordination of Activities With Other Public and Private Agencies. A university is peculiarly equipped to undertake various activities in extension education. These include the training of extension personnel and research in improved extension methodology. Other activities may well be undertaken if the university has adequate resources remaining at the disposition of the institution. Many activities promoted by public and private agencies can be improved considerably if there is intimate cooperation with the university activities. These include the development of agricultural credit programs, the production and distribution of fertilizers and pesticides, assistance in the processing and marketing of farm products, etc. An important measurement of maturity of the institution is how well it coordinates its extension activities with these other agencies rather than being either competitive or unconcerned with them.

Efforts to Accommodate the System to Local Environment. Every culture and every political system imposes restraints on the type of extension education program which can be most effectively implemented. There is ample evidence that the direct transplantation of the U.S. extension model without modification will not work. The capacity of the institution to look simultaneously at the country's needs and the current extension practices and to explore imaginatively alternative systems for reaching its goals in an essential measure of institutional maturity.

Use of Modern Methods of Communication and Motivation. Again, it has been demonstrated that the direct transplanting of such concepts as community development or major reliance on mass media have not produced satisfactory results. However, the basic concepts of group dynamics, local leadership, and community organization are relevant to the communication of new ideas and the motivation to their adoption. These concepts represent a departure from the classical authoritarian relationships which have existed in the developing nations and, thereby, hold great promise in the development of new systems for the countries involved.

Administrative Incentives

Stimulation of Professional Improvement. Faculty members seem eager to acquire additional degrees which will qualify them for higher rank. This additional training per se, however, does not guarantee that they will be interested in developing new approaches or adopting different attitudes. Furthermore, those who are not eligible, for whatever reasons, for additional education abroad find little incentive for experimentation with novel ideas at home. Many feel that there may be little to be gained but the scorn of one's peers by adopting new teaching methods or new relationships with students or trying to change course content. A serious challenge to the administration of an institution is to stimulate this type of professional improvement.

Recognition and Reward for Excellence. Under the traditional European system, there is little opportunity for rewarding staff members directly for excellent performance. Promotion in rank is generally available only when there is an opening at a higher rank and a general public invitation is issued for applications to the post. Salary levels are normally tied closely to academic rank, and there is little latitude for using this as recognition for improved performance. Public acclaim generally goes to the administrative staff of an institution rather than to the individual staff members whose performance is outstanding. These constraints seriously limit administrative capability to recognize and reward excellence. An important measure of institutional maturity is found in the ability of administration to break through these traditional barriers.

Delegation of Authority. Authoritarianism is the common rule in virtually all developing nations. This extends throughout public life. It seriously stands in the way of an institution's ability to stimulate a broader base for decision making among its personnel. However, the number of ideas that are generated and implemented within an institution is almost directly proportional to the number of persons who feel a responsibility for these activities. Therefore, an institution that can delegate authority throughout its ranks holds the promise of a more imaginative type of operation.

Sharing in Making Professional Decisions. In a departmental meeting it is common to find that no one in the department dares to utter an opinion on an issue until the department head has made his position clear. This stems from the fact that challenging the opinion of those in authority is traditionally dangerous and even foolhardy for an ordinary staff member. It is often difficult to remove this concept from his thinking, especially in an authoritarian type of society, but the flow of new ideas and the imaginative inquiry into unknown fields depends upon staff members being freed from fear of exercising their own initiatives.

Effective Use of Controls. Order and discipline are necessary within an institution if it is to proceed effectively. However, controls which are authorized to insure order, discipline, and efficient use of

3

public resources and the protection of public property are also often turned toward the aggrandizement of personalities, the unreasonably restrictive use of libraries or equipment, and the prevention of experimentation with new methods of teaching. Therefore, a measurement of how wisely controls are used is a good indication of institutional maturity.

Development of Public Support. The land grant criteria indicate that an institution is supported by the public to the extent that it provides services which the public holds in high esteem. It is the administration's responsibility to insure that public response is properly channeled. The responses themselves, unless properly directed, will not achieve maximum results. If a land grant type institution is to prosper, its activities must be called to the attention of public officials who are responsible for institutional support, and this becomes an important measure of institutional maturity.

Measurement Instruments

The variables listed in the A.I.D. study referred to above may be measured easily by objective methods or by simple subjective estimates, and a summary quickly reveals the salient points requiring attention. The variables peculiar to the land grant model, on the other hand, are much more subtle in their measurement and require the careful preparation of measurement instruments. Two researchers on this project (16) prepared a set of instruments for use in the Near East and South Asia by first having long talks with the administrators of one major project to get their insights and suggestions on questions which could be asked and the types of responses to be expected. Involving the host institution in the development of approaches generated desirable enthusiasm for self-evaluation. The preliminary instruments were tested and revised in several other projects before returning to the first site for general application. The resulting instruments (16) proved to be quite useful in measuring maturity in the land grant dimension.

The joint evaluation of progress and maturity by the assisting agency and the host institution brought sharply into focus certain needed changes in technical assistance strategies and the mix of inputs from foreign sources. The indicated changes with maturity are discussed earlier in this chapter, but it is important to note here that the periodic application of well-prepared measurement devices can be extremely useful in maintaining efficiency in institution building.

Some Guidelines About Maturity

This research reveals many significant things about the need for more attention to the measurement of institutional maturity than there has been. A few of the specific conclusions are:

1. Institutional maturity should be given serious consideration in preproject planning, even to the extent that subgoals be established and that measurement of progress toward these goals becomes a part of the basic project strategy and activity.
2. Experience teaches that a project normally should not be phased out completely until there is relative assurance that the institution has developed a dynamic, self-generating level of achievement in serving the country's economic development.
3. The measurements of maturity should be used extensively to give direction to technical assistance needs as the institution develops and approaches full maturity.
4. The type of technical personnel and other inputs required in the early stages of institutional growth are much less productive as the institution matures. The later stages require more highly specialized personnel who can help efficiently by short visits.
5. Participation in the development of instruments for measuring maturity of an agricultural institution can be very meaningful for the institution's staff members and it will enhance the ultimate use of the results.
6. The progress and maturity of the indigenous agricultural institutions should be evaluated periodically in an atmosphere of mutual interest and concern. The results of the evaluation should be considered as the basis for determining the best combination of technical assistance inputs as well as the areas requiring concentration of host institution resources later.

Operation of Contract Programs

VII

Team Selection and Preparation

Staffing the Contract Team

Some 1,400 staff members served on the sixty-eight projects included in this study. Fifty-seven percent were employed by the contracting university immediately before their overseas assignment. An additional six percent had been staff members of the contracting university at an earlier time. The second most frequent employer was another university, the source of sixteen percent of the contract staff members. Other staff members were recruited from a wide variety of employment: private business, the federal government, primary and secondary school teaching; and some had been college students immediately before their contract employment.

While a majority of the contract staff members came from the contracting university, there was a wide variation among individual universities in the proportion of the staff coming from the home campus. Six universities supplied twenty to thirty-nine percent of their contract staff from the home campus; ten universities supplied forty to fifty percent; ten supplied sixty to seventy-nine percent; and nine universities supplied more than eighty percent from their own staffs.

The proper source of staff members for project assignment is perhaps the most widely discussed of all the questions of university A.I.D. contract personnel management. One hears the generalization that universities should fill nearly all, if not all, of the contract's positions from their own staffs. Eighty-three percent of the A.I.D./Washington personnel surveyed agreed with the statement: "Unless a university can fill most of the contract positions with qualified people from its own staff, it should not enter into a technical assistance project." On the other hand, many persons defend the practice of recruiting contract staff members from off-campus. They point out that performance overseas is the major consideration and that the best qualified person may not be available from the home campus.

There is too strong a tendency to generalize that filling contract positions from the contracting university is "good" and off-campus recruitment is "bad." Focusing on three factors may be helpful in judging the merits of obtaining staff from home campus and from other sources: (a) use of home campus staff as evidence of university commitment and faculty support for international development work; (b) the effects of staff sources on the attainment of host country project objectives; and (c) the effects on the U.S. university, in terms of maintaining its ongoing domestic work, and strengthening the university's international work, making the international dimension an integral part of the work of colleges and departments.

Most university contract projects are likely to rely on some combination of on-campus and off-campus personnel. With expanding programs, universities normally look off-campus for highly qualified persons in making personnel choices. Administrators should consider the following advantages of each source:

Advantages of selecting from the home campus:

1. The university demonstrates commitment to international development.
2. Home campus staff members have closer ties to the contracting university and are more likely to work as a cooperative team in the host country.
3. The overseas individual and team who know the home campus, its administration, and faculty draw stronger home campus support.
4. Returned staff members are available to help counsel and teach host country personnel at the U.S. university.
5. It is easier to develop overseas research and educational activities as an integral part of the university's program of work.
6. Development of country-to-country institutional ties is facilitated.
7. Staff members returning from overseas assignment may contribute to the international dimension of the university's program.

Advantages of selecting personnel from off-campus:

1. There is less interruption of the university's program.
2. The personnel reservoir is enlarged with the possibility of obtaining better qualified persons to meet overseas project needs.
3. Some contract positions may be filled before home campus personnel would be available.
4. A person may be recruited from off-campus, with the possibility of an on-campus appointment following the overseas assignment.
5. Persons from other backgrounds may give more breadth of ideas in overseas institution development.

A cooperative arrangement among several universities has been used as a way of sharing the burden of staffing a limited number of technical assistance projects. This plan provides a larger manpower pool from which to draw and gives staff members from several universities an opportunity to participate in the project. Such arrangements are still in their infancy but there is support from both university and A.I.D. personnel for this type of cooperative endeavor. Returned staff members, their colleagues, and department heads favor, by an eighty percent majority or more, arrangements for universities to work together to staff overseas projects. Ninety-three percent of the A.I.D./Washington questionnaire respondents favored this idea.

The staffing record from university to university and from time to time for a given university has been variable but, in general, universities have had about one vacancy for each five contract positions. Both university contract team leaders and A.I.D./Washington personnel indicate that filling of contract positions is one of the more poorly carried-out of the university backstopping services.

Some minimize the seriousness of the deficiency in having a high proportion of contract positions filled, pointing out that there are difficulties in finding personnel for specific assignments and that the university staffing record has probably been as good as the federal government has been able to do on a direct-hire basis. Nevertheless, better university performance is needed in staffing A.I.D. contract projects. Field teams are small relative to the magnitude of their tasks and, in most cases, there is only one staff member in a particular discipline. A substantial part of the gains made by this person may be lost if there is an interval before his successor arrives to carry on the work under way. Vacancies result in the overall administrative and supporting duties being carried out by fewer people, thereby reducing their effectiveness.

Personnel Selection and Practices

The quality of personnel is a major determinant of U.S. university success in attaining its objectives, both overseas and at home. It is not unusual to hear the judgment expressed that universities do not staff their A.I.D. contract projects with their best faculty members. This project has not uncovered the evidence to support this generalization. Nearly one-half of those who have served on the A.I.D. contract projects included in the study have held the doctor's degree and an additional one-fourth have held the master's degree. The fact that only eleven percent were sixty years of age or older refutes the often-heard generalization that universities have relied heavily on staff members who are near retirement age. Fifty-seven percent of the contract staff members were under fifty years of age. Universities clearly have had some outstanding staff members on their A.I.D. contract projects. On the other hand, some staff members who have been ineffective on the home campus have been assigned to the overseas project. An overseas assignment seldom leads to more effective work whether the ineffectiveness was due to professional or personal reasons. The greatest weakness in personnel selection has been in matching the qualifications of individuals and the requirements of the work to be done on the A.I.D. contract assignments.

The contract team member, as part of a small group of Americans in a strange environment, becomes highly visible to his compatriots and others alike. Questionable professional and personal qualities are likely to be very conspicuous under such conditions. Therefore, it is crucial that staff members for overseas assignments be selected with extreme care.

The feeling is often expressed that highly educated and experienced persons from the academic community cannot fully use their abilities on A.I.D. contract assignments. This idea is not strongly supported by those who have returned from assignments; nevertheless, their responses point up the importance of greater efforts in matching project requirements with the qualifications and professional goals of the individuals who are to serve on these projects.

University administrators agree that highly sophisticated research scientists are not needed on most contract assignments. In fact, to send them would be a waste of their valuable talents to the university. On the other hand, university administrators and A.I.D. officials are conscientiously alert to the dangers of sending persons who lack the qualifications and abilities to handle the jobs that need to be done overseas. The overseas assignment demands both depth and breadth of competence in a technical field and an understanding of a foreign cultural, social, and political environment, a combination of demands that is likely to challenge the best of the university faculty. Ability to work with people and influence them is extremely important.

The following qualities that are important for those serving on technical assistance projects represent a distillation of ideas of those who have served on these projects, international program administrators, A.I.D. personnel, and research analysts who have observed contract team members in action in many countries:

1. Technical and professional competence. The staff member should be qualified by education and experience to perform the overseas responsibilities. He should have the same educational qualifications usually associated with similar responsibilities on the home campus.
2. Interest in international development. A desire to help the people of the less developed countries through the type of

project on which he is serving is crucial to individual success.

3. Understanding wife and family. Family members accompanying the team member can have a significant influence on his degree of success; thus effective university international program administrators consider the qualifications of the wife and characteristics of other family members in selecting overseas personnel.
4. Personal characteristics and work habits. Often-mentioned personal qualities become particularly important on overseas assignments: willingness to work cooperatively with others, patience, perseverance, ability to sense high priority tasks, innovativeness, ability to communicate ideas, and ability to identify with the host institution and its objectives. The staff member should be flexible and adaptable to unanticipated conditions and situations and be decisive and willing to act once a definite decision has been reached.
5. Language proficiency. Fluency before arrival in the foreign country is not absolutely necessary; however, ability to communicate reasonably efficiently and willingness to use the foreign language and to become fluent are extremely important to early effectiveness and success.
6. Age and stage in career. One cannot generalize about age and overseas effectiveness other than to point out the importance of the relationship between age and stage in the career of the individual and personal and professional qualities. Age and maturity are highly respected in some societies; however, they must be combined with professional competency, other personal qualities, mental vigor, and good health for overseas project effectiveness.
7. Overseas experience. Previous overseas experience in the less developed countries is desirable but cannot be insisted upon in view of the limited involvement of U.S. university personnel in these countries. It is particularly helpful if the team leader has had experience in a culture similar to that of the host country.
8. Preparation for the assignment. The staff member should be thoroughly prepared for the assignment including country, project, and assignment orientation. The relationship of the work on the project to overseas and on-campus programs should be understood.

The team leader is in a unique position of responsibility. He not only is responsible for leading other members of the contract team, but has important roles to perform in relationships with the host institution, host government, and the A.I.D. mission as well as home campus personnel. The important position that he holds calls for special qualities in addition to those of other members of the team.

It is particularly important for the team leader to be a member of the contracting university staff. It is evidence of commitment of the U.S. university to the contract project. In addition, it will facilitate closer complementary relationships between the U.S. and overseas work of the university. If the primary emphasis of the project is in developing an institution, the team leader should have a knowledge of the basic principles and procedures involved in building of institutions. Continuity of one person in the team leader position is more important than for most other team positions because of the special relationships to U.S. and host country organizations, many of which take time to develop through personal contacts.

Experiences in technical assistance work under A.I.D. contracts suggest the following needs for improvement and guidelines for personnel selection and practices:

1. Career disruption is a serious problem affecting university staff member availability for technical assistance positions. Special attention is needed to see that the assignment contributes to the career goals of the individual.
2. There is need for university department heads to be more involved in program planning and personnel management for technical assistance projects. Team members should be closely linked to the university department throughout the assignment.
3. Longer-range planning of personnel needs of the overseas project is needed. The individual's role after the overseas assignment should be made a part of pre-assignment personnel planning.
4. University policies and practices with respect to salary adjustments, rank promotions, and fringe benefits while on overseas assignments and immediately following such assignments should be made explicit. Likewise, the applicable U.S. and host government laws and regulations bearing on monetary and other benefits should be made clear.
5. Personal characteristics of family members, the impacts of the overseas assignment on the family, and suitability and adaptability of the family members to the project environment deserve special attention.
6. Longer periods for assignment preparation are needed than has been common in the past. In many cases nine to twelve months

are needed to complete an orderly transfer of on-campus research responsibilities, bring teaching or extension responsibilities to a reasonable concluding point, and make professional and personal preparation for the assignment.

Those responsible for personnel management with respect to international work must recognize the nature and peculiarities of personnel practices and attitudes in the university community. Compared to employees in most businesses or government organizations, the individual staff member has a high degree of independence. He is expected to show initiative in his particular area of competence, thereby improving the research and educational work of the university in his discipline. Personnel practices that will encourage similar initiative during and following the overseas assignment should be followed.

There is a significant attitude on university campuses, particularly among staff members who have returned from foreign assignment, that administrators at all levels (university, college, department) are asking faculty members to accept long-term overseas assignment, a responsibility the administrators themselves would not be willing to accept. The attitudes of returned staff members are communicated to prospective contract team members. One university has had an unusual involvement of department heads and associate deans on assignments of one year or longer. This university has developed understanding and consensus among administrators and faculty members on the importance of international work and the role of administrators, as well as faculty. It is not suggested that administrators and faculty members should be equally involved on long-term assignments. However, in virtually every university that was a part of this study, better understanding of the administrator's and the faculty member's appropriate role in international work is urgently needed. Lack of understanding and good communications are serious deterrents to strong support for a growing international dimension.

Team Member Orientation

The university faculty member serving on an A.I.D. contract assignment must work in an environment greatly different from that of the home campus. His role as a professional in his field is certain to be somewhat different from that played at home; he is likely to be responsible for a much broader area of work, thus can be less specialized. He is likely to be more concerned with administration and institutional development. The costs of providing U.S. personnel on foreign assignments are high; therefore, it is important that the time spent overseas be used effectively from the very beginning of the assignment.

In addition to the professional differences, living conditions for the individual and his family are certain to be widely different from those in the U.S. Orientation before leaving the U.S. and during the first days overseas is the way to develop an understanding of the professional and personal adjustments that are to be made.

The responses of those who have returned from service on university A.I.D. contract projects show considerable dissatisfaction with the pre-assignment orientation, on project objectives, on the individual assignment, on the culture and political systems of the host country and on living conditions. About one-fourth of the returnees judged the orientation to be satisfactory. A comparison of the adequacy of orientation in the early years and more recent years of university contracting shows no improvement, as judged by those who have served on the contract programs. This response is undoubtedly influenced by the changing number of universities involved in A.I.D. contract projects and increasing expectations in university staff members as their university gains experience in overseas technical assistance. In any case, the responses sharply point up the need for improvement in orientation.

The following guidelines are suggested for improvement in orientation of those accepting university A.I.D. contract assignments:

1. There should be an organized orientation program for contract staff members and their families.
2. Before departure, each person should fully understand the objectives of the project, institution building principles and procedures, and the policy and procedural guidelines established by the U.S. university and the field contract team, A.I.D., and the host government and institution.
3. The new appointee should know the objectives of his specific assignment and how it relates to the long-range objectives in his area of specialization and to those who have preceded him and are to follow. Department administrators and others in the specialized disciplines who have knowledge of the project should be involved in this phase of orientation.
4. Consideration of needs for special supplies and equipment should be a part of the orientation and provision should be made for ordering these before departure.
5. The U.S. Government and the U.S. university personnel policies and regulations related to contract staff members and their

families should be carefully studied and fully understood. Regulation subject to change should be explained.

6. The orientation program should provide for complete information on the host country, living conditions at the project location, availability of schools and provisions for travel and allowances for school-age children, and housing, furniture, and personal items to be furnished or to be shipped from the U.S.
7. Returned staff members, their families, participants from the host country, and others with knowledge of the country should participate in the orientation process. They are usually anxious to share this knowledge with others who show a genuine interest; however, such persons are not used effectively in orientation of new staff members unless the campus administrators of A.I.D. contract programs assume responsibility for home campus orientation.

Only the U.S. university can bear the primary responsibility for pre-assignment orientation. The new staff member becomes oriented concurrently with transferring responsibility for present work to other university staff members. A substantial part of the orientation is done as a part of the recruitment process, as the staff member and his family can decide about accepting the A.I.D. contract assignment only after having considerable knowledge of the overseas project and the potential assignment's effect on his career and the lives of his family.

While the U.S. university should bear the primary responsibility for team member orientation, A.I.D. policies and practices with respect to contract personnel and financial support for the project should complement the efforts of the U.S. university in orientation.

Every effort should be made to make the orientation before departure as complete as possible; nevertheless the orientation process should continue after the staff member and his family arrive in the host country. A.I.D. mission personnel can be helpful in seeing that new contract staff members understand the relationship between the A.I.D. contract project and other U.S. efforts in the host country. They can also assist in introducing university contract personnel to the proper host government representatives. The university contract team leader should take the initiative in developing an organized orientation program in cooperation with A.I.D. mission personnel for each newly arrived team member.

Language Preparation

Improvement of the language competencies of those serving on

A.I.D. contract assignments holds great potential for improving their effectiveness. Those who have served rate language study and training as the least adequate of the backstopping services provided for them. All of the contract projects in this study were in countries in which languages other than English are spoken by most of the people; however, in a number of countries English is the language of instruction in the secondary schools and universities, so university contract personnel can communicate with the highly educated people in English. Three-fourths of those who had returned from contract assignments reported that most of their work was done in English with host country nationals who were fluent in English. Yet, if Americans are to be instrumental in developing institutions that are service-oriented and responsive to the needs of the masses of people, there is strong argument for being able to communicate with the masses. Communications through interpreters, or with limited knowledge of the native languages, are far from fully effective as a means of becoming adequately informed on the aspirations of these people.

Nearly one-half of those who served on A.I.D. contracts stated that lack of facility with the language was "some" or a "major" handicap. In Latin America, more than three out of five reported that language was a handicap. Only one in twenty spoke Spanish or Portuguese fluently upon arrival in Latin America and only one in four spoke the language adequately within six months of arrival. About one-fourth of those serving in Latin America used an interpreter but few found this to be a satisfactory means of coping with the language problem.

There is widespread agreement among those who have served on university A.I.D. contracts that lack of facility with the native language is a serious deterrent to understanding the people and their culture and being wholly effective in carrying out the specific contract assignment.

Over sixty percent of those who have served in Latin America and nearly fifty percent of those who have served in the Far East think that those serving on A.I.D. contracts should be able to communicate in the language of the host country before they leave the U.S. About one-fourth of those serving in Africa and the Near East-South Asia region, where most of the work is done directly with English-speaking nationals, think that facility with the native language before departure is important.

The lack of language facility upon arrival reduces the possibility of developing rapport with the nationals early in the assignment. Some point out that rapport is not likely to be developed if it is not accomplished shortly after arrival in the host country so U.S. personnel effectiveness may be reduced even beyond the time needed to develop language competency.

In recent years, there have been many improvements in techniques for teaching languages. Unfortunately, in too many cases the universities have not brought this knowledge to bear on the language fluency problems of those serving on A.I.D. contract assignments. A.I.D. has been more effective in supporting improvements in language competency of their direct-hire personnel than they have in supporting language training for university contract personnel. A.I.D. and the universities should explore means for improved language training programs. University contract personnel might join with the A.I.D. direct-hire personnel in language training programs. Where there are several universities with international programs in countries or areas of common languages, consideration should be given to inter-university language study. A.I.D. financial support of such programs would be in the best interests of both A.I.D. and the U.S. universities. In many universities, there is need for greater effort and cooperation of the foreign language departments in providing language study programs tailored to the special needs of those accepting foreign assignments.

Field Team and Home Campus Relationships

The Field Team and University Administration

The A.I.D. contract field team is responsible for implementing the overseas project to attain the objectives of A.I.D. and the U.S. university in assisting the host country. For the field team to be fully effective, many personnel, technical, and logistical services are required from the U.S. university. The changing personnel composition of the field team dictates that a substantial portion of the program continuity be borne by home campus administrative units.

The analysis of contract staff member recruitment, team member and team leader lines of responsibility, and personnel practices points up the serious problem of lack of definition and understanding of the place of the project field team in the U.S. university administrative structure.

The tie of the field team member to his subject matter department is usually a loose one if there is any tie at all. There is a growing awareness on many university campuses of the need to develop a closer working relationship among subject matter departments, university-A.I.D. contract administrators, and the A.I.D. project field team. Department heads on many campuses express considerable dissatisfaction with being bypassed in program planning and personnel recruitment by college and university level administrators. They feel the need to visit the overseas project and develop first-hand understanding of the project, its objectives, and the personnel and other requirements for attaining the objectives. Without first-hand knowledge of the overseas project and its environment, it is unreasonable to expect an administrator to participate in program planning and personnel management and to integrate the overseas aspects of the project into the department's total program.

With variations in administrative structure among universities, diversity in A.I.D. contract projects, and the magnitude of the university's international work, it is not possible to establish one administrative pattern for every university and project. The administrative place of the field team will vary depending on the university's administrative organization for both domestic and international work; nevertheless, some guidelines can be followed to guard against the field team becoming an administrative appendage whose place is neither clear nor understood.

The administrative relationship to university, college, departmental, and international administrative units should be clear. The very nature of the overseas operation is likely to mitigate against simple, straightforward organization and lines of responsibility. The field team is usually small and usually includes representatives from several disciplines and more than one college. The following specific recommendations, if followed, would go far in strengthening the overseas operation in its administrative relationships to the home campus:

1. A place should be established for the overseas team leader in the administrative organization of the university with relationships to such positions as university director of international programs; deans of colleges; directors of college international programs; directors of research, resident instruction, and extension; and department heads made clear. This will require careful delineation of administrative and technical matters.
2. The team leader should have a clear delegation of authority and responsibility to represent the U.S. university in pursuing the objectives of the overseas project and should be a person who is capable of exercising this authority. The U.S. university, however, should have definite policy guidelines within which the field team is to operate, thereby ensuring program continuity with changing team leaders and other personnel.

3. The field team members need to be tied more closely to academic departments. Therefore, lines of responsibility of the team leader and team members and department heads should be defined and lines of communication between the team leader and team members and department heads should be open.
4. Department heads should be responsible for program planning of the overseas project under the overall leadership of the campus project administrator and team leader. College deans and associate deans and directors should perform roles as for domestic programs, with directors of college international programs performing leadership roles and coordinating functions.
5. Department heads should also have major responsibility for personnel recruitment and management for persons in their professional discipline.
6. The overseas team member, team leader, department head, and other campus administrators should understand the division of administrative and technical responsibility between the team leader and the department head.
7. Criteria for evaluating performance of overseas staff members should be established, recognizing the somewhat different, and usually additional, functions performed by overseas staff in a more complex environment.
8. The procedures for evaluating performance of overseas personnel should be understood by team members and administrators so that overseas staff members are assured of consideration for salary increases and rank promotion equitable to those on campus. The team leader, department head, and other administrators should share in the personnel evaluation process as they share in technical and administrative supervisory responsibilities.

The Role of the Executive Visitor

Visits by U.S. university officials to the overseas project have been accepted as a part of the contracting arrangement. Contracts usually provide that such university personnel as the campus coordinator of the overseas project, the president, the vice-president, deans, or department heads may visit the host country to review the progress of the work under the contract.

If properly conceived and used, executive visits can be an important tool in providing the improved backstopping services and personnel practices that are needed. They serve as a communication link between the home campus and the U.S. and host country personnel associated with the project. In addition to contributing to the overseas project objectives, they can build interest in and support for international work on the university campus.

A.I.D./Washington officials point out that the two most important purposes of executive visits are to review and evaluate project progress and operational problems and to improve home campus backstopping of the project.

Field team members expect executive visits to serve four functions: 1) review and evaluation of the project; 2) support of the team leader; 3) attention to personnel and morale of the field team; and 4) assistance in providing good relations between the U.S. university personnel and host government and host institution representatives.

Host institution and host government personnel expect executive visits to be an opportunity for the visitor to become acquainted with the host institution administrators and faculty, and with the work being done by U.S. university faculty members and those with whom they are working. They also expect a progress report on participants who are receiving training in the United States. Protocol is an important feature of institutional and personal relationships. The prestige of the visitor's position in support of program objectives often opens avenues of contact bringing about better working relations and more prompt decisions by host country officials. Executive visitors can also contribute to better mutual understanding of project problems between the host institution, host government, A.I.D., and the field team.

A.I.D. mission personnel view the executive visits as a means of gaining firsthand information on the status of decisions between the U.S. university and A.I.D./Washington. Mission officials expect the executive visitor to review the field team operations, see each staff member of his university, and to inspect the project site. The executive visitor's presence is the opportunity to discuss both policy and operational problems involving the team, A.I.D. mission, and host institution and thus strengthen the field project operations.

On the whole, team members reacted favorably to executive visitors, with three-fourths responding that positive contributions were made. However, about one-fifth indicated that no purpose was served by the visit, and nearly one-tenth reported that the executive visit damaged morale and relationships. While the negative reactions to the executive visits are expressions of the minority, they are sufficiently frequent to raise serious questions in the minds of many people about the general effectiveness of executive visits.

A.I.D./Washington officials emphasize the need for more complete orientation of executive visitors regarding the host country and, specifically, the problems related to the project. Much time is lost in the host country reviewing materials that could have been studied at the home campus or in A.I.D./Washington before the visit. Executives should do their home work, keep close contact with project leaders and know problems before arrival overseas.

The effectiveness of executive visits in fulfilling their purposes can be improved by: (a) planning and preparation for the executive visit, both on home campus and in the field; (b) understanding the purposes of a specific executive visit; (c) selecting the appropriate visitor for the expected purposes of the visit; (d) considering the appropriate length and number of visits; (e) assuring contacts with individual team members and their families; (f) sending a visitor who shows interest and concern for the overseas programs; and (g) keeping social activity and sightseeing within reasonable limits.

A.I.D. officials are interested in visits of several university officials. Many of them feel that the university president, vice-president, director of international programs or members of the board of trustees should make a visit to the host country at least once during the life of the contract. The working level persons are helpful on general contract administrative and policy problems. Deans and department heads should visit as needed for evaluation and consultation on project directions.

If two or more U.S. universities have similar types of projects in a country, there are advantages in having the executive visits at the same time to encourage better coordination of efforts and communications. Simultaneous visits may be more effective in relations with host government and A.I.D. mission representatives and conserve on their time.

In some projects host government and host institution officials have visited the U.S. If properly planned, more widespread use should be made of such visits to give key administrators an opportunity to study the development of agricultural research and educational institutions. Such visits need not be limited to the U.S. as there are now some excellent examples of development of such institutions in other countries, a number of which were supported under university-A.I.D. contracts.

The Backstopping Organization

The rural development project in a developing country requires a diversity of services. Some of these are primarily logistical, others are of a more professionally substantive type such as personnel selection and technical support of the overseas personnel. The international programs administration of the U.S. university also has a key role to play in seeing that the university gains and uses the experience from the overseas development project in building the international dimension of the university.

While similar backstopping functions are performed, the organizations within which agriculture technical assistance projects are administered vary widely among universities. The universities are about equally divided between those in which the administration is university-centered and those in which it is college-centered. One highly specialized agricultural contract is administered at the department level with good communication between the department and college administration.

Sixteen of the twenty-eight universities with active projects have university-level directors, deans, or coordinators of the international program and activities on a university-wide basis. In fourteen of these universities, this person takes an active part in administration of agriculture A.I.D. contract programs; in two cases, the A.I.D. contract work is administered in the college of agriculture with little discernible direction from the university level. There is wide variation in who is directly responsible for administration of agricultural A.I.D. contracts among the fourteen universities; in four universities the director of international programs serves as project coordinator but in six universities there are one or more project coordinators serving under the top-level university international administrator. In four other universities, the director of international agriculture programs is directly in charge of agriculture project administration, either with or without the assistance of a project coordinator.

Five universities with college-centered administration of agricultural A.I.D. contracts have directors of international agriculture programs but an equal number have project coordinators who usually work under the broad policy guidance of the dean of agriculture or an associate dean. In three universities, the dean of agriculture or an associate dean serves as project coordinator with assistance from secretaries, graduate students, or other junior-level personnel.

The variety of administrative organizational patterns reflect the diversity of A.I.D. contract and other international involvements of universities and the gradual evolvement of the organization of the particular university. In the earlier years of university A.I.D. contracting, the on-campus responsibilities were sometimes administered by a dean or associate dean as an additional duty. Some universities with limited A.I.D. contract activities continue in this pattern but experience has shown that this is not a satisfactory arrangement for other than a very limited involvement. A.I.D. project or campus coordinators have been designated by many universities or college administrators and the appointment of directors of international agriculture programs has emerged, within the past five years, as a means of handling the administrative work of international agricultural activities. Nine of the twenty-eight universities had appointed such persons by mid-1967 and others were contemplating similar appointments. In most of the universities, this position is comparable to the positions of associate dean or director of resident instruction, research, and cooperative extension. Most of the universities with directors of international agricultural programs have been involved in A.I.D. contract work for ten or more years and have significant international activities in addition to A.I.D. contract programs.

This study does not provide the basis for general conclusions regarding the relationship between the type of backstopping organization and project success, either in terms of overseas accomplishments or impact on university campuses. The following characteristics and observations may serve as a guide in determining the organization best suited to a specific university with a given kind and degree of international involvement:

University-centered Organization. Universities with this type of organization tend to have more A.I.D. contract involvement and often have contracts in fields in addition to agriculture; thus, two or more colleges are involved. These universities usually have all, or nearly all, international activities administered from a central office —A.I.D. contract projects, foundation grant projects, international student affairs, foreign visitors, study abroad programs, and possible area studies programs.

University-centered administration encourages better integration and coordination of all international activities and facilitates complementary relationships among international programs. Some university administrators favor the centralized administration with primary responsibility for implementation of a particular contract resting with the dean of the college most intensively involved and with a project coordinator appointed from that college. Intercollege committees may advise the dean and project coordinator.

There is a tendency for the top-level administrator of international programs that are university-centered to have both more depth and more breadth of experiences and views on international affairs than do college-centered administrators.

There are advantages to the university-centered administration in facilitating feedback of A.I.D. contract experiences into the international dimension of the university's work. Many of the opportunities for use of knowledge gained overseas lie wholly or partly outside the administrative responsibility of the individual college, particularly the college of agriculture.

College-centered Organization. The universities with college-centered organizations usually have A.I.D. contracts only in agriculture, in most cases only one contract. None of these universities has more than two agricultural technical assistance contracts. Personnel overseas on the contracts are usually limited to agriculturists.

Where a college director of international agricultural programs has been appointed, he is the person directly responsible for administration of the contract programs. He may have an assistant, but in most cases, the magnitude of the job to be done does not warrant the services of two professional persons. The assistant is likely to have part-time responsibilities in the college for other than international affairs.

College-centered administration is likely to result in closer working relationships with college department administration than is the case with university-centered administration, particularly where there is a director of international agriculture programs who works cooperatively with department heads.

Department-centered Administration. There are few A.I.D. projects in agriculture that are administered at the department level; however, there may be cases in which this type of arrangement is satisfactory. These are projects whose objectives can be attained by the personnel in one discipline. However, even in these cases there are likely to be some backstopping functions that can be done more efficiently by college and university-level administrative personnel.

With the preceding comments on administration of A.I.D. contract programs at different levels as a backdrop, the following should serve as guidelines in organization of administration of U.S. university international work:

1. The organizational pattern for international work should be consistent with the university's organization for conducting other work. Ad hoc, appendage and satellite arrangements that set the international work out of the main line of administra-

tion tend to minimize the importance of the international work and lead to its neglect.

2. There should be provision for faculty members at the department and college levels to be involved in determining policies with respect to international work in the same way that this is done for domestic work.
3. College of agriculture administration of international activities should be linked to university-level administration so as to maximize support for and communication on international work. There should be close working relationships between the university director of international activities and the college director of international agricultural programs.
4. Department heads or chairmen should bear primary responsibility for overseas program planning and personnel management in their respective disciplines under the overall leadership of the dean of agriculture and director of international agricultural programs.
5. Provision should be made for use of the talents and experience of those who have served on A.I.D. contract projects and other foreign assignments in strengthening the college and university international work.
6. The college of agriculture that is committed to building the international dimension of its work should consider the appointment of a director of international agricultural programs (or director in international agricultural research and education). This position should be comparable to the associate deans or directors of resident instruction, research, and extension with respect to his relationship to the dean of agriculture and to heads or chairmen of departments. It is important to recognize that this fourth dimension is basically a geographical distinction, thus there should be close working relationships between the director of international agricultural programs and the other three associate deans or directors with the dean of agriculture serving in a leadership and coordinating role. The college with two or more A.I.D. contracts may need two or more project coordinators serving under the director of international agricultural programs.
7. For the college of agriculture with international programs limited to one A.I.D. contract, placing responsibility for direct administration of the contract program in the hands of a project or campus coordinator can be a satisfactory arrangement. This person should be responsible to the dean of the college.

He should be a professionally respected, administratively competent person, preferably with overseas experience.

Field Team and Host Country Relationships

Introduction

U.S. team members have made many favorable impacts in host countries, and these have created good relationships between U.S. and host country personnel. However, there are cases where adverse relations between U.S. team members and host country personnel have occurred. This chapter reviews and describes some of the areas around which both positive and negative relationships have developed. Although it emphasizes negative relationships and difficulties, this does not imply that most of the relationships in any given area were negative. An attempt has been made to identify the crucial areas and suggest some reasons why difficulties arose. This procedure provides a base upon which new patterns of human relationships can be initiated to avoid future unfortunate occurrences.

In general, major decisions made unilaterally by either U.S. or host country persons contributed to the development of negative relationships. Where there was a free exchange of ideas between U.S. personnel and host nationals, where enough dialogue was developed to create understanding and arrive at consensus on a multilateral basis, positive relationships developed.

The data for this chapter were derived from two primary sources. The first was an intensive analysis by one overseas researcher of relationships with U.S. team members as they were reflected by host university personnel during interviews at nine institutions, involving eleven contracts. The second was the reports of the overseas researchers. These reports discussed, among other items, relationships as evidenced in past project operations. Both of these sources of data were discussed with each of the overseas researchers.

Individual and group relationships are far more important in institution building than generally recognized. They develop whether people consciously work at them or not. Good relationships by their very nature contribute to a frame of mind which encourages maximum understanding and learning by everyone involved in the program. Poor ones by their very nature become roadblocks to communication and to a person's interpretation and understanding of what others say or do.

Evidence collected in this research indicates that there has not been enough attention paid to the opportunities, challenges, advantages, and necessities of team members working diligently to build good relationships as an integral part of the institution building program. It is not enough for a U.S. technician to talk, suggest, write, or even demonstrate. Ideas may be expressed through words or symbols without any real communication taking place. Only within the medium of good feelings, mutual trust, and confidence can true interchange of ideas and learning occur. Appropriate here is the old adage, "the teacher teaches, but the student learns." Unless there are favorable relationships between the teacher and the learner, little, if any, learning occurs.

An awareness of these basic principles brings into focus the significance of patterns of relations between U.S. team members and host country personnel. Unless the relationships are warm, friendly, and affirming, and unless they are built upon a degree of consensus and understanding about the tasks to be achieved and how to do them, little is accomplished. In many cases where successful relationships were developed, channels of communication were kept open, and meaningful progress was achieved in institutional development.

Relationships With Host Government Personnel

Relationship patterns between the U.S. technical team and host country nationals were many and varied. They ranged from very good to very poor; they varied over time, from one technician to another, and from one project to another. There were no projects so poor that the overseas researchers could not find some good relationships. Even though the most successful project had a large majority of good relationships, a few were negative. The kinds of support received from various host country entities were closely related to the quality and quantity of relationship patterns.

In most cases the relationships of U.S. team members with the host government personnel were good, and considerable support was received. In certain institution building projects poor relationship patterns were given by some as one of the reasons for discontinuing a project. In each country where a project was developed, representatives of the host government recognized the need for better agricultural educational institutions. Members of the host government worked with A.I.D. personnel in defining the country's needs and requested A.I.D. to secure the services of capable U.S. agricultural institutions to help develop an indigenous agricultural institution. In some instances the host government expressed preferences for a specific institution in the U.S.

In many countries, citizens have initiated and supported legislative programs that enabled the creation and support of new institutions. In other instances laws have been passed to make possible a combination of favorable circumstances for institutional development. Evidence in this study (Chapter IV) indicates quite clearly that many host governments generated programs that resulted in more liberal funding for development of indigenous agricultural universities than at any previous time. The willingness of governmental personnel to initiate large financial programs for institutional development is probably the best indication of good relationships and substantial support from host nationals.

Favorable relationships with host governments also are reflected where team members have been extended facilitating courtesies. In many instances, team members have received certain privileges extended to the diplomatic corps of the U.S. Embassy. Household goods and equipment have been exempted from import duties. Other special privileges have been extended to the U.S. personnel, such as allowing them to build schools and operate educational programs for their children. Host government officers have been zealous in providing good police protection for the U.S. team members and their families even though the latter have not held diplomatic passports.

In general, good feelings have existed between U.S. team members and host government personnel, and much support has been received from the governments.

Relationships With Host University Personnel

U.S. team members spent much more time and developed more relationships with host university personnel than with any other group. The potential frequency and the possible ranges of intimacy of the contacts set the stage for a great variety of relationships. Good ones contributed to institution building; poor or negative ones tended to retard or inhibit developments.

The data shown in Table 5 below were obtained through one overseas researcher's interviews with personnel of seven host universities where nine projects had been terminated. In the early part of this section, an effort is made to identify some areas around which relationships developed and indicate the quality of the relationships. The latter part of this section describes situations which should be corrected to avoid certain negative features.

Development of Physical Facilities. The procurement and development of physical facilities such as buildings and equipment offered an opportunity for cooperative activities between U.S. and host country personnel. In some cases, new buildings were built for a new institution. In others the task involved remodeling old structures or replacing structures that had become inadequate or had been destroyed. In most cases, except in war-torn areas, the U.S. contribution to buildings was small. There were more good or fair relationship patterns centered around the development and procurement of physical facilities than in any other general area (see Table 5).

Table 5.

Quality of Relationships in Selected Areas Between U.S. Team and Host University People as Reported by Host University Personnel, Based Upon Nine Terminated Contracts at Seven Universities.

	Quality of Relationship			
	Good	Fair	Poor	Negative
Physical Structure	80	10	5	5
U.S. Dollars	40	20	20	20
Trainees	40	40	10	10
Academic Discipline	55	30	10	5
Social and Cultural	65	20	10	5
Institution Building	30	35	25	10

Decisions About U.S. Funds. Questions about who had the right to decide how U.S. dollars assigned to institutional development should be expended led to some differences of opinion. Sixty percent of the relationships were good or fair. Many team leaders were reported to have felt that it was their exclusive right to make the final decisions. Often, host nationals at the university felt that the dollars to be used on a project represented a gift to the host university. Hence they felt that decisions concerning the use of dollars should be bilateral. A.I.D. policy varied in different countries. There were instances reported where U.S. personnel had decided where and what goods should be purchased, and the host nationals expressed resentment of the purchases and made light of the materials and equipment. Many pieces of equipment were not in use because spare parts and repair services were not available. Where the host nationals reported that the U.S. team members had discussed such purchases and arrived at joint decisions, no problems were in evidence and good relationships prevailed.

Selection of Trainees and Activities Upon Return. Eighty percent of the relationships between the sponsoring team and the host nationals centering around the selection of trainees and their use upon return were good or fair. One of the difficult problems during the early periods of the project development was the spoils system in certain of the host countries. Sometimes there was great pressure to send a person to the U.S. because of political or family ties. Returned team members were asked if political or family ties caused less qualified trainees to be chosen to go to the U.S. More than one-third answered yes. Experience and time gradually eliminated spoils selection, and the quality of relationships that centered on the selection of trainees improved.

Fewer strained relationships arose over the question of who were selected as trainees than over their use when they returned. The trainees often were not allowed to use their experiences and training upon returning to their home campuses. When U.S. team personnel attempted to spell out new roles, new functions, or new ways the trainees should and could do things, tradition was challenged and the old power structure was threatened. As a result, in some cases the trainees were not fully utilized. Better planning about the role of the trainees in the institution building process would have resolved most of the problems. These plans would have included (a) a delineation of areas within the institution that needed to be strengthened through trainee programs, (b) the selection of the persons, (c) the development of a suggested study program, and (d) the anticipated roles and responsibilities they would have upon their return. The lack of detailed planning and consensus in these things caused difficulties.

Improvements of Academic Disciplines. Much dialogue developed in this area, and U.S. personnel attempted to improve the academic disciplines in a manner consistent with professional standards, and eighty-five percent of the cases were rated as good or fair. During the early part of project operations, the host nationals generally accepted the professional judgment of the U.S. team members. As the trainees returned, they usually supported the point of view of the U.S. team. This helped maintain good relationships and improved the academic disciplines.

Social and Cultural Understanding. For the most part, the relationships between Americans and host nationals in social and cultural affairs were good—eighty-five percent were positive. The host university nationals, almost without exception, were gracious and sociable. They attempted, as a rule, to make the U.S. teams feel at home and satisfied with conditions in the country. On a few occasions, U.S. team members were unable to accept the social and cultural values and problems of the country. Host nationals were proud of their country and culture, although they recognized their poverty and lack of progress. U.S. team members should be sensitive to the situation and not be critical or make unfavorable comparisons if favorable relations and good support are to be secured. In cases where the team members could not accept conditions and make necessary adjustments, the quality of relationships was only fair or negative.

Institution Building Relationships. The U.S. team came to the host institution with the objective of aiding in either building a new institution or rebuilding an old one so that it might adequately serve the needs of agriculture. The U.S. team had as an objective building an institution modeled on the land grant college. The host university staff had only general information about the land grant colleges. In most cases neither the U.S. nor the host institution personnel understood the theory and practice of building this kind of an institution in a less developed country. This led to many differences of opinion and it is not surprising that only sixty-five percent of the relationships in this area were rated as positive.

The Admissions of Inadequacy. The request for assistance to develop a new kind of agricultural institution had a bearing on the patterns of relationships that were likely to develop during the execution of the project. The fact that help was requested was an admission by the host nationals that they had not developed the kind of an institution they desired. This embarrassment usually was not as great for ministry personnel as it was for university people. Host nationals at the university, in some instances, expressed guilt feelings and inferiority. This contributed to less than desirable relationships in a few instances where the U.S. team member consciously or unconsciously expressed attitudes of superiority, or failed to develop patterns of relationships on a basis of equality.

The recognition that more effective agricultural institutions were needed was often stronger among government officials, national leaders, and others than among university personnel. The expectations of some university personnel were closely related to the definition of their own abilities and the kind of help they felt was needed. During interviews with host university people, it became evident that some did not feel any real need to make significant changes in their institution. Such staff members were relatively satisfied with the institution as it was and saw little need for change, except with those problems that could be corrected with dollars. Tradition was the guiding force. Such self-satisfied staff members saw no need to relate the resources of the institution to the solution of national problems. Extension and some types of research were defined by such individuals as activities below the level of the dignity of the college professor. This attitude, where it occurred, was found most often among senior staff members.

In a few cases the major reason expressed by host university nationals for desiring a project was to obtain U.S. dollars to purchase items they needed. Instances were encountered in which it was implied or stated that, "the only reason we want to work with you or tolerate you is to get the money you are passing out so liberally throughout the world." In these short-duration terminated projects, it was not often that one found host nationals who genuinely wanted U.S. team members on the campus to help create the new attitudes and personal commitments which are necessary to make a university more than just a teaching institution.

The attitudes of self satisfaction with things as they were and of feeling that the only thing needed was money did not contribute to good relationships. In those instances where U.S. team members discovered a significant role for themselves in changing the nature and operational programs of the institution, where they were able to help host nationals obtain an understanding and consensus about the reasons for and the nature of change, no problems arose. The relationships were good and the project was widely supported. In the few cases where host university personnel had participated in pre-project planning or in project reviews, the groundwork was laid for the development of good relationships with U.S. team members. Where the host personnel did not participate in such activities, obstacles to the development of good relationships were created.

Definition of the Role of U.S. Personnel. This problem is discussed in detail in Chapters IV and VI. During the early phase of many project activities, U.S. team members often played the role of advisors. The advisor role was accepted by institution nationals without much reservation on many projects during the first few years of operation. As the projects continued, however, the host university personnel developed strong adverse reactions to the advisor role. Some U.S. personnel continued to play this role, but others saw the necessity of becoming active participants.

In those parts of the world where institution building started without trained personnel at the university level, it was necessary for the U.S. team members to act as teachers, research personnel, and administrators. When deans, vice-chancellors, and other administrators were interviewed at the time this research was conducted, some of them said very explicitly that they wanted the U.S. personnel to be teachers and researchers, not advisors. Host staff members frequently said that the U.S. team members should demonstrate their ideas by teaching, conducting research, and handling assigned administrative responsibilities.

The emphasis by the host nationals that U.S. team members devote their energies to tasks relating to teaching, research, and administration suggests that U.S. team members did little to help them understand the many facets of institution building. There was little evidence of joint determination of the nature, scope, and character of the institution which was being built or of the development of strategies to reach these objectives (see Chapter VI). In some instances when U.S. team members tried to spend time on activities that were not traditional teaching, research, or administration activities, misunderstandings arose because the host nationals did not understand what was being attempted. In those cases where the institution building processes were understood by nationals, the activities that the U.S. team initiated strengthened the relationships.

Type U.S. Personnel Desired by Host Nationals. Host nationals often expected to have the best staff members of the sponsoring U.S. institution. Many excellent U.S. staff members were assigned to the projects; the host nationals recognized this, and a great reservoir of good will and fine relationships developed from it. On the other hand, there was seldom a project to which someone less competent was not assigned. Although such situations were exceptions, there were enough cases to interfere with the maturation of good relationships.

Another problem was the fact that in a few instances the sponsoring institution sent extension oriented personnel to work at institutions where the personnel had not accepted the academic dignity of extension work. A few comments such as this were expressed: "Why do they send an extension man to do the teaching and research work?" The only institutions in which an extension-oriented person was accepted were those which gave unqualified academic standing to extension activities.

Personnel Understanding of Host Country. The U.S. team members' attitudes, verbal expressions, and actions with reference to the country and its people, culture, and problems were highly important in determining the character of relationships. Even though a large majority of the U.S. team members' behavior served to develop good relationships with the host nationals, a few did not and their actions and attitudes were sources of irritation to the host nationals. A few were accused of photographing only bad conditions in the host country and sending these pictures to the U.S. A very few U.S. team members complained that host institutions' undergraduate programs were weak, that faculty members were poorly trained and not capable of doing good research work, and that students did not have a feeling of social responsibility. A few team members expressed the opinion that the school and its faculty were not aware of the real needs of the country and were not willing to initiate steps for resolving these needs.

Americans' Definition of Their Role. This topic is developed at length in Chapter V. In those cases where the U.S. team members capitalized upon the opportunities for professional growth and development, they usually defined their foreign assignment in terms of growth and benefit to themselves. The host national sensed this. Such attitudes contributed to good relationships. Where the team members expressed or felt that their experiences abroad were not conducive to growth, the host nationals resented the feelings and poor relationship patterns resulted. A large majority of U.S. team members defined their role and performed in such a way as to establish rapport with host university nationals and gain their support. Some practices that contributed to good relationships include the following: In many cases U.S. team members assumed heavy teaching loads and carried administrative responsibilities. Host nationals recognized team members' contributions in the development of organizational patterns, selection of trainees, and the development of overall, long-time programs. On many occasions team members sat on committees and participated in council and departmental meetings where plans and programs were originated and implemented. Other team personnel helped write class syllabi and develop evaluation programs, new teaching methods, and examinations. Some team members placed themselves in the position of their hosts and asked themselves how they would react is a foreigner were trying to help them. At other times team members would ask host nationals to help them. These changed the team role from one of the all-knowing advisor to cooperative partners in a development venture. Cases were cited of individuals who had made tremendous contributions to the institution by getting students and staff members out into the field to develop useful information.

Dislikes and poor relationships developed with a few U.S. team personnel who traveled about the country observing situations, then writing a report containing many recommendations for correcting conditions. Host university personnel reported to one overseas researcher that no team member should consider making a recommendation in a country unless he could stay, develop, and help implement a program to solve the problem. One vice-chancellor said, "Let's have U.S. personnel who can come here and see a job to do, then stay long enough to get the job done." Another problem cited by the host university nationals was the rapid turnover of U.S. personnel. This criticism was leveled in a few instances at team members who stayed in a country as long as two years. These host nationals felt that it took the average U.S. team member six months or more to adjust to the country, learn its conditions, and discover the ways and means to make progress. The additional time in a two-year term was not long enough to accomplish the work. A lack of insight and understanding among team members about institution building was found in many cases and has been discussed elsewhere in this report. The overseas researchers discovered that it was an important factor contributing to poor relationships.

Host Country Language Facility. In a few countries English was the only language the team members needed for work with university staff and students. English was either the language of the university or was understood by staff and students. However, in most countries, it was difficult to develop good relationships with faculty and students when using only English. In such cases the team member was helpless and ineffective until he learned to communicate in the spoken language of the country. When members of the U.S. team learned the language of the country as soon as possible, it helped materially in establishing good relationships with the host personnel.

Desire for a Big Name University. Most host institutions wanted a big name U.S. university to assist in programs of institutional development. In some cases host nationals complained that the sponsoring U.S. institution was not as strong as it should have been. The consortium approach to institution building was favored by some host university nationals. Under this approach, the host institutions thought they could draw upon the strengths of several fair universities and thus be compensated for any inadequacies at one or another of them.

Development of Goals and Objectives of Institution Building. Dialogues and seminars that were developed as a part of the institution building processes found much favor among the host nationals if they were developed as cooperative activities. Such activities provided an opportunity for representatives of all parties to express their views and also to examine and resolve differences. A number of cases were cited which indicate the value of this technique in developing good relationships and soliciting support from host nationals.

American Help to Competitive Institutions. If a U.S. team attempted to help more than one institution the competitive factor sometimes was responsible for strained relationships. There were cases where more than one institution was assisted by a U.S. team but the competitive factor was not present and no difficulties arose. The competitive factor most commonly was found in the extension field. In each part of the world the overseas researchers agreed that most U.S. teams had not been sufficiently creative or ingenious in helping the host universities discover an effective and non-competitive role in extension.

The Proportion of Project Dollars Expended for Americans. At some host institutions a roadblock to meaningful relationships developed because host nationals felt that too many of the U.S. dollars were spent on travel by U.S. personnel. An example cited was the practice of allowing U.S. team members assigned from six months to a year in a country to take their wives and children along. In contrast, no trainee from that country who went to America for a year or less was allowed to take his wife or any member of his family on project funds. U.S. team members were allowed to ship automobiles and large amounts of household goods, and the shipping costs were charged to the project. On the other hand, trainees were allowed as part of their ticket cost only those things which could be carried on the plane.

Instances were cited by some host nationals of numerous trips or short visits made by administrators and team visitors from the sponsoring institution, with expenses assigned to the project. Host staff members often felt that little good was derived from these visits, yet they felt constrained to be courteous and offer the visiting officials extensive entertainment. Many nationals, not knowing the purposes or help derived from such visits, often felt money could have been spent more wisely. Where these visits were understood and programming was well developed, favorable relationships resulted.

Low Prestige of Agriculture. In many of the developing nations, the agricultural colleges or universities were placed in a lower status than colleges such as medicine, science, and arts. In many cases it seemed that financial support for other professional programs by host governments was given priority over agricultural programs. Often most of the students who matriculated in an agricultural college did so only because they had been turned down by other colleges of the university. Agriculture was not their first choice. Where this condition prevailed, and it was commonly found throughout the world, it was difficult for team members to develop good relationships with staff who were not proud of their positions or with students who would have preferred to be in another field.

Cultural Factors and Project Development. Examples of extensive support by host institutions and host personnel were many; however, examples of difficulties in obtaining support were also noted. The following example was taken from the report of a team leader. It illustrates the nature of some problems encountered by U.S. team members. A person reared in a culture where one is expected to work hard and finish tasks quickly sometimes finds it difficult to retain his composure under conditions where no one seems to care whether a project moves forward promptly. Yet they are the kinds of things team members must learn to cope with. (Italics are by the writers.)

> The development of the experimental farm is *progressing slowly*. The housing facilities for technicians have been completed. The other storage and shop buildings *have been delayed* because of a *cement shortage* and *unavailability of budgeted funds*. Drainage, leveling, and irrigation development contours are complete but *much delay has taken place*. This *delay* was *caused by the failure of an overall drainage project*, to be done by the irrigation district, to materialize. A decision has been reached to drain the farm land directly to the river independent of the overall project. Communications between the farm and the school are still *awaiting authority to use a wave length*. This authority must come from the federal government.
>
> The electric energy for the Institute for the Rural Technology research and production *is still not available*. Much of the structural development is completed but *constant delays* by the power company *have held up* this program.
>
> The building for the plant physiology and botany classrooms and laboratories is being constructed. *It was hoped* that this building would *have been completed by now*. The *shortage of cement has held up* the contractor's operations. It should be finished within two or three months.

Relationships With Private Industry

At some of those institutions (Chapter IV) which had achieved the greatest maturity in terms of the land grant philosophy many excellent relationships or linkages had been jointly developed by the U.S. team members and the host university personnel with private industry. The private sector of society gave support to the university as an expression of confidence and trust. Scholarships, research grants, gifts of property, and aggressive action in the legislative halls for budgets of the institutions were examples of public confidence, trust, and support. One vice-dean reported to an overseas researcher that the real problem was no longer that of getting money, but of spending it most effectively. The demands of the private sector for the services of the more capable host university staff members and the offers to employ the top twenty percent of the graduating class in agriculture indicate the trust, confidence, and good relationships which have been developed in several cases. However, in many countries the private sector is still only very weakly developed.

Individual and Team Operations

Team Relations with A.I.D.— The Technical Assistance Organization

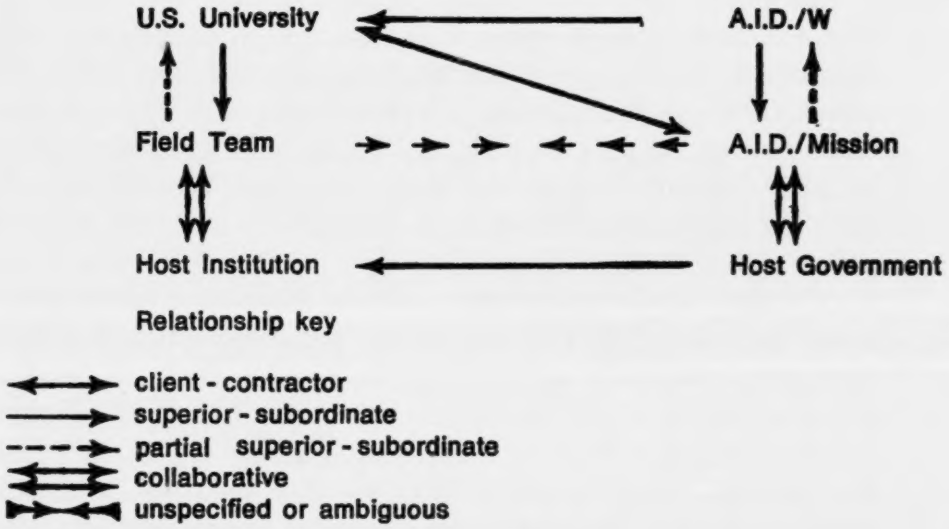
Technical assistance through a U.S. university contract with A.I.D. results in an administrative configuration that is awkward and inefficient in at least three major respects. In the first place, it is composed of several entities, with a number of different purposes and functions (see Fig. 1). This means that the particular project is only a small part of the total concern of those who have administrative responsibility for it. Secondly, the management of technical assistance activities is relatively new for these entities, and hence they lack administrative experience and tradition in this type of endeavor. Thirdly, there is a rather rapid turnover among personnel in most of these entities (1).

These characteristics tend to provide a relatively unstable administrative environment, and this produces much frustration and inefficiency. Policies and procedures tend to vary with each new person rather than remaining stable over a long time. Particular tactics and strategies for accomplishing goals are rarely stable long enough to be highly effective, and a given set is seldom passed on from one generation of administrative staff to the next. A number of difficulties arise from this condition.

Institution building is a long-term activity which requires relative stability to achieve ultimate goals. If the goals are somewhat vague in the beginning, or if they are reinterpreted and reestablished every year or two, it is quite difficult to make steady progress. Host nationals become somewhat disenchanted with the variability in emphasis and approach by successive waves of technical assistance personnel and they soon learn to wait out the next group. This is particularly true in activities which are difficult or personally distasteful or which require a high degree of statesmanship. This greatly weakens the leverage which external assistance might have in holding the host institution's commitment to initial objectives.

The unstable administrative configuration also means that the project has short memory. It is very difficult, for example, to know the specific objectives and priorities of the team leader of a project a few years back. Similarly, it is hard to find out why a particular A.I.D. input or approach is no longer tenable at a given project site.

Figure 1. Administrative Entities Involved in A.I.D.-U.S. University Contracts and Their Hierarchical Relationships to Each Other.


U.S. University
A.I.D./W
Field Team
A.I.D./Mission
Host Institution
Host Government
Relationship key
client - contractor
superior - subordinate
partial superior - subordinate
collaborative
unspecified or ambiguous

Thus, newcomers find it very difficult to know what strategies they are supposed to fit into or what line of activity merits their support. Frequently they are left to their own devices to determine anew what the major focus should be, and, therefore, continuity becomes almost accidental. This situation is greatly aggravated by the absence of initial plans and approaches that were derived from the mutual efforts of A.I.D., the university contractor and host country representatives.

U.S. university contract personnel tend to give their professional allegiance to their own university and to their own professions rather than to the A.I.D. organization that supervises the contract. The fact that A.I.D. neither takes the university into a partnership arrangement nor gives it clear and unfettered authority to operate in the field makes contract personnel feel that lack of administrative support is one of the greatest deterrents to the quality of their performance. On the one hand, contract personnel feel that A.I.D. administrators are more interested in administrative detail than in ultimate accomplishment in building indigenous institutions. A.I.D. personnel, on the other hand, feel that the contractors cannot be turned loose to follow their own professional interests and leads in performing functions that are sponsored by the U.S. Government in a foreign country. This diversity of allegiance has diverted much of the teams' institution-building energy to coping with in-house frustrations.

Atkinson (1) studied the A.I.D.-U.S. university relationship by obtaining responses to a series of propositions describing the relationships and their consequences. The major results could be summarized as follows:

1. There is little disagreement that where U.S. foreign policy is concerned, A.I.D. personnel must assume the dominant role and contract personnel must be subordinate to it. This view has been challenged only when A.I.D. personnel were confronted with the decision to allow university personnel to work directly with the government leaders in institution-building matters with the concomitant danger that they would inadvertently implicate the U.S. Government in matters to which it was not prepared to be a party. U.S. university personnel often feel that they gain insights from working closely with the host institution and people which would be useful to A.I.D. in the formulation of its policy regarding continued assistance to the country, and they want to share these insights with A.I.D. This is particularly true in very large countries, such as India and Brazil, where A.I.D.'s contacts are primarily with the central government but where the individual states have some autonomy in making decisions about their own institutions.
2. The technical aspects of institution building, including the overall plans, strategies and details are relegated to the U.S. university contractor with minimum interference from A.I.D. However, A.I.D. frequently feels that its experience in dealing with underdeveloped nations around the world gives it a perspective and insights which could be of greater use to U.S. university contractors in building institutions peculiarly suited to host country needs.
3. Administrative confusion and difficulty have come largely in the middle ground between the above two end-points in such matters as supplying materials and personnel, budgeting additional local support and reporting and preparing project documentation. This is the area most susceptible to professional competition between A.I.D. and U.S. university employees. It is where government regulations and U.S. university personnel management procedures come into conflict. There is usually a bitter contest between the contract office of A.I.D. and the U.S. university in the initial negotiations in this area, and the signing of a contract seldom settles the jurisdictional disputes which continue to plague administrators on both sides of the fence. Unfortunately, these conflicts have often been raised to disproportionate status by both parties.

Attempts to amend the contract in order to resolve these difficulties have only widened the breach in spite of the fact that Richardson (12) refers to the last five years of A.I.D.-U.S. university relationships as a period of harmony. The most recent revision of the standard university contract does not promise to improve on the universities' basic contention that A.I.D. insists on preempting their prerogatives in determining the most efficient procedures in given situations. The U.S. universities have continued to press for a grant arrangement which would give them much greater flexibility in their project operations. It seems logical to argue that a responsible U.S. university should be given responsibility to operate a project. However, A.I.D. can cite many unfortunate errors in judgment by U.S. universities in the past as justification for its insistence on maintaining tight control over the activities of all U.S. personnel serving under government sponsorship overseas.

This dialogue has extended to some consideration of the types of activities which can properly be performed through university contracts and those which, by their very nature, must be done by the agency itself. Such decisions have varied considerably within the agency, as Richardson (12) pointed out. In Latin America, for example, there was a strong tendency to relegate many activities to contracts and reduce direct hire personnel to a minimum. University personnel responded that they were having to perform many functions which properly should be handled by the mission. In the Near East and South Asia, on the other hand, the trend toward contracts was much slower and university personnel often complained that A.I.D. was performing many tasks which they could do better themselves. This issue was placed on the agenda of this research project, but unfortunately the research effort yielded little about it to guide future operations. Perhaps the major problem is not so much deciding which projects should be undertaken by university contracts as finding ways to prevent the great waste of technical assistance energy on administrative details. Thus the problem of administrative control by A.I.D. versus administrative leadership and assistance has yet to be resolved.

In summary, it seems clear that the administrative responsibilities and prerogatives of U.S. university contractors and their field teams must be further clarified. The erosion of mutual trust and esteem should be checked and the scars of past frustration should be healed rapidly. It would be much more productive if university contractors were given a much broader administrative responsibility and wider latitude in seeking efficient approaches to institution building overseas. A.I.D. could then concern itself more with the efficiency of overall accomplishment and less with the details of operation. The U.S. university's role and function in the host country should be made clear to the host institution and the host government, and the U.S. university should be given wide latitude and flexibility of operation within that understanding.

The Institution Building Process as Affected by Technical Assistance

The process of institution building per se has received little attention in the U.S. and technical personnel who are recruited for this activity overseas are not well prepared in this respect. As a matter of fact, there is much confusion as to what needs to be accomplished by the physical presence of technical personnel that cannot be accomplished more efficiently some other way. One writer called it "assignment to ambiguity."

Institution building involves internal strengthening of the host institution. This concerns its leadership, its organization, its program, its operating philosophy, and its resources. Perhaps equally important to institution building are the links of the host institution to its environment. Institution building implies that the institution has an impact on its environment's economic development.

Several impacts and linkages are relevant. It must perform a useful service, such as teaching the youth, performing research on important problems of a sector of the economy, or teaching adults such as farmers or government leaders about improved techniques and other information. It must introduce new ideas which other groups accept and eventually use, such as the concept of science in agriculture. These services are called program or product linkages.

Another kind of linkage enables the institution to survive and function. It involves obtaining authority to function and the necessary resources or appropriations, normally from government.

Institution building also involves enabling the organization to maintain the innovation it began and creating a certain freedom to break away from older institutions in its program development and in the stewardship of its resources.

The U.S. university contract team must be regarded as a foreign group whose explicit objective is accelerating the above types of changes in the host institution. This involves a complicated social action process which must be understood if it is to be efficiently performed. Rigney and McDermott (14) developed a model to describe this process in terms of the actions, perspectives, and relationships which must be achieved largely through the physical presence of U.S. technical personnel. There is good reason to believe that field team strategies which take into account the described relationships will be more efficient and successful.

The Technical Assistance-Institution Building Model. The model assumes that a land grant type institution is the ultimate objective, and it describes the changes that must occur in the host institution with respect to the attitudinal orientations, the perception of individual and institutional roles and responsibilities, the development of technical and professional capabilities, the services and communication with society, and the generation of political and public support. It details the role of the "advisor"* in guiding and accelerating these changes and it suggests the sequence in which certain changes occur.

The model is conceived at four levels of institutional organization: (a) the individual technician, (b) the department or middle management, (c) the top management and overall organization, and (d) the interrelationships with government and the public. The activities, relationships and changes which must occur at each level are described below. It must be recognized, however, that development in any one level cannot proceed very far without a parallel development in each of the others. The implied effective pairing at several points between the "advisor" and host individuals describes personal relationships and is not to be confused with a formal counterpart designation.

1. The Individual Technical Relationships — The relationships here are individual, technical and productive. The principal development at this level is in the individual's technical and professional competence. The relationships and accomplishments proceed through a series of stages. First, the presence of a foreign "advisor" evokes a rejection-acquiescence reaction on the part of the host national as a defense mechanism against threats to his personal self-respect and security and to his present system of personal relationships within his organization. This must be overcome before the "advisor" can be influential in altering the host national's attitudes, orientation and professional motivation. Similarly, the "advisor" encounters skepticism as to his ability to bring his technical compe-

---

* The term "advisor" has been widely used by A.I.D., especially in NESA and Far East regions, to designate the U.S. professional in technical assistance. It has been scorned because of the implied restricted role, hence it is used here in quotes.

tence to bear on the local problems under the constraints of the local environment. The "advisor" initially engages in activities specifically designed to demonstrate his ability in this respect in order to achieve technical acceptance.

Later there are joint short-run activities to change the host national's lethargic, defensive and pessimistic attitude to one of self-confidence, initiative, and optimism. Such activities also deepen the relation between the "advisor" and the host national. The permanence of change wrought by these initial activities depends on how well the new experiences and insights are absorbed into the host person's concept of his professional role.

After these activities, the host national becomes aware of his professional role and contribution to society and his institution's responsibility to the public, and he also recognizes that further serious activity on his part will require greater support from higher up in his organization. As he acquires a degree of self-confidence, he sees he can have a certain control over his own destiny and he begins to analyze himself realistically and objectively. He now evaluates his future professional development systematically and objectively rather than seeing a threat to personal integrity and security against which defense must be mounted. He changes from passively receiving advice and help from the "advisor" to assuming the initiative as professional peer.

By this time several things have happened to him. He has learned that he has unused potential, despite severe resource limitations. He has increased his confidence in himself and has seen that he can be useful. He can project these attitudes to his colleagues and to his institution for which he now sees new potential. He has also seen that, as an individual without the help of certain changes in his institution, he will soon be stymied. Thus, he tends to develop and identify with his institution, which involves both his responsibility to it and his dependence upon it, and both of these he sees relating to the public needs. Out of these experiences comes a well-developed idea of what he must do for his continued professional improvement.

From this point, his relationship with the "advisor" is entirely as a peer and he is ready to widen his contacts with the world community of scholars.

2. The Department Level Relationships — The important task of the "advisor" at this level is to get a department to view its function as facilitating and focusing the activities of individuals within it. This is perhaps the key point at which institutional programs are changed and it involves groups and inter-group relationships. An

"advisor" may function simultaneously as an individual technician. At the department level, members of a bi-national pair act not only as individuals but also as members of groups. Thus, their activities and decisions have wider implications.

The "advisor" at this level encounters the same rejection-acquiescence phenomena and must achieve the same personal and technical acceptance. Personal acceptance includes confidence that he is able to receive and deal with sensitive information safely. Technical acceptance comes from demonstrating competence in departmental program organization or management. Technical competence in a specific field is not automatically converted to acceptance in program leadership.

The first activity in this area will be a series of unstructured discussions about the entire department, its future, its role, its needs and its growth. This dialogue will then begin to focus on the department's human resources and to place these opposite departmental responsibilities. This will lead to plans for making use of unused or misused human resources and identifying the needs for additional personnel.

Eventually, the "advisor" is well enough accepted by the department head that the entire departmental organization and plan is made available for review and reorganization. This stage represents a rare opportunity which may not last very long, and therefore, it must be exploited as quickly as it appears. Serious reorganization of the department requires an awareness of the department's role in its country's development and an understanding of the prestige and satisfaction which may be gained from a departmental involvement in the nation's problems. There will be a serious assessment of the department's resources, requirements, and priorities of activities. A revised departmental plan will include a rather full development of the professional plans of the individuals within the department. Implementation of the plan will depend, among other things, on the depth of rapport that has been achieved with department members.

3. Top Management-Organization Relationships—Relationships at this level are normally the responsibility of the team leader. An adequate perception of the country's needs must be developed and the host institution's role in satisfying these needs must be defined. The sequence of relationship attainments which occurs at the individual and middle management levels also occurs at top management levels, but the higher the administrative responsibility the greater are the implications for personal and technical acceptance. Thus, a team leader must gain personal acceptance on the basis not only of

his own performance, but also of his team's performance. The team leader will work in close contact with others in the power structure as well as the top administrator of the host institution. The team leader's acceptance is enhanced as he and the team identify closely with the host institution and its problems, and as the host institution comes to regard them as an integral part of its organization.

Initial dialogue will cover a wide range of the host institution's concerns, including its organization, resources, its country's needs, and the institution's responsibility and role in satisfying these needs. This dialogue will eventually be translated into some concrete statements acceptable to the host institution regarding its role in the national economy. These include the concept that the host institution can produce something which the economy needs, and if it does, the economy in turn will support the institution.

There is a consensus growing out of host institution departments, and top management articulates this consensus and coordinates and stimulates the departments. The entire team's contribution to this development is brought into sharp focus at the top management level. Then a strategy is developed for institutional growth and progress, taking into account the institution's resources and its responsibilities and competing or collaborating forces and agencies. The need for positive action rather than a passive attitude is recognized. Contacts are made with the host government and other relevant institutions and efforts are initiated to understand the host government's view of the country's needs and the institution's role. The strategy will also include internal reorganization necessary for the host institution to discharge its expanded role and function within the country.

4. Relationships With Government and the Public—At this level, the team leader and team members must come in contact with the relevant institutions and commercial agencies of the host country in order to help the host institution develop fully. Host government is regarded as the management entity of the greater society and it will be the primary source through which the host institution receives financial support. At this level the team acts specifically as a collaborator of the host institution and specifically not as a representative of the U.S. Government.

The proper role of the team in its relations with the host government is a function of the team's identification with the host institution. The team leader recognizes that typical U.S. relationships between government, public agencies and private enterprise do not prevail in the host country, and therefore U.S. development formulas are of limited use. On the other hand, host institution leadership has been tradition bound in its relations with government and private enterprise, and too rapid changes cause problems. This results in a rational evaluation of the country's present and historic situation, but it does not provide a generalized solution.

At this level a number of contacts must be developed between the host institution and the host government and the public. Top management relationships have no chance for continuing success unless undergirded with enough functioning relationships at the production level to make an impact on host government. These contacts are made specifically to demonstrate the host institution's usefulness in contributing to the country's agricultural development, and these demonstrations set the stage for dialogue and ultimate consensus regarding the institution's role and responsibility in developing the nation's agriculture. These activities lead to the development of strong public support and acclaim for the institution's operations.

Ultimately, there is developed an overall national plan which includes the institutional development and its support. This culminates in a realization that agricultural institutions are not a luxury which can be ill-afforded by the developing nations, but rather they are indispensable for accelerating modernization and agricultural development.

In summary, it is clear that there are activities and accomplishments in technical assistance institution building that are most efficiently realized through the personal activities of an "advisor." These activities can be stated much more clearly than they have been in the past. University contractors and A.I.D. should realize that these activities are not intuitively known to professionals before going overseas, and therefore teams should be instructed and oriented so they will clearly understand what they are expected to contribute in their particular assignment.

Strategy Implications of the Model. Several strategy implications of the above model are important to improving the efficiency of U.S. personnel overseas. One of these deals with an altered concept of the total role of U.S. personnel and led to the formulation of an optimum role for U.S. "advisors" overseas by Rigney (13). He listed five characteristics of the optimum role:

1. Early Visibility and Acceptability—It was found that the first three to six months of a U.S. professional's two-year assignment is spent in getting acquainted with local customs, the institution, and people. This results in a loss of valuable time and it also tends to give the impression that the U.S. technician is incapable of bringing his

professional abilities to bear on the local problems. Therefore, if the team leader carefully schedules the U.S. professional's first three months to engage him in an activity in which he is highly skilled and which will give him and his counterpart colleagues high visibility immediately after his arrival, it would set the stage for much earlier and more useful involvement in other institution building activities.

2. Effectiveness in Institution Building — Whatever else a U.S. professional does overseas, the central thrust of his effort should be to accelerate institutional development. This may include activities in one or more of the following areas: the development of institutional leadership, both at the top and at middle management; the formation of an adequate cadre of technical personnel; provision for an adequate organizational structure; a program content which focuses sharply on the host country needs; provision for physical and fiscal resources; and the development of appropriate institutional tradition and attitude. The general activities which appear to be most effective in institution building include many do-it-yourself activities but with a special precaution to ensure that the primary objective of institution building is not lost sight of in the process. One reason that U.S. personnel have inclined less strongly toward direct involvement in professional activities in the past is that in many cases professional activity became the primary focus and institution building was either totally forgotten or badly under-emphasized. In these circumstances, the professional activity died when the "advisor" left, and little permanent contribution remained. The most effective U.S. "advisor" in institution building walks a narrow line, engaging in professional activities with sufficient vigor to ensure their success and appeal, but never forgetting that these activities are primarily a medium within which host nationals can be influenced and trained.

3. Enhanced Professional Capability and Stature — University contracts have been plagued by inability to find competent, imaginative and energetic faculty members who are interested in serving overseas. The major reason is that they consider an overseas assignment as a two-year interlude in their professional growth. Many staff members feel they cannot afford the professional price of participation in such programs. In an optimum role, therefore, up to half of his effort would be in activities to improve and enhance his professional stature. These would broaden his understanding of his profession in the environment of the foreign country in which he serves.

4. Optimum Relations With the Home University—U.S. universities, and particularly their department heads, are reluctant to spare

their best professionals for overseas assignments because of the need for strengthening the university's domestic operations. Therefore, the U.S. professional's role overseas must enhance his usefulness to his home university upon his return if technical assistance is to get a reasonable share of the best people in the university. To achieve this he must engage in activities which will enhance his professional development and which will broaden the horizons of his home department and university upon his return. These are activities which require him to relate his overseas experiences to his profession in general and to the development process in which he is engaged, and which require him, upon his return, to report his experiences to his peers.

5. Availability for Further Technical Assistance Activity — The cost/benefit ratio from investment in technical personnel overseas is high, partly because most of them are new to this type of activity. It is estimated that a second two-year assignment could increase in efficiency by fifty to one hundred percent. Therefore, so conceiving the role of the U.S. professional as to make him available for repeated tours from time to time would make it possible to capitalize on his experience in future years. This is done by ensuring that he remains professionally sharp and institutionally oriented while he is overseas and thus avoiding the normal six to twelve months' retreading time upon his return to his home university. Under these circumstances, the institution probably would be willing to allow him to return on overseas assignments at reasonable intervals. The generalized optimum role for a U.S. professional, taking all of the above factors into account, would include a number of essential features:

He would anticipate his tour by developing plans for an initial set of activities jointly with the team leader and his department. These activities would be chosen to attract the attention of his prospective host national colleagues and would be things he could do well without extensive background in local needs, customs or restrictive environment. He would also anticipate his tour by determining jointly with his departmental colleagues certain activities which might advance his own profession in the foreign environment. These will be chosen to be as closely related to his principal assignment overseas as possible, to be of interest to his departmental colleagues, and to extend his professional capabilities.

He will receive predeparture orientation and instruction in the process of institution building and development. He has been actively engaged in this activity in the U.S. but he has had little awareness of it and given little thought to it.

When he arrives at the host institution, he will plunge immediately into the early visibility activity which had been planned in advance. During the first six months he will begin a number of activities in his professional field and he will begin also to identify his particular responsibility in institution building. He will allow his host national colleague to provide him with much of the needed orientation and indoctrination in local customs and conditions as a normal process of dialogue and interchange concerning their mutual professional interests.

He will serve as an integral element within the institution and will participate widely in its activities. This will help him understand the real problems of the institution and will provide him with a palatable platform from which to offer advice regarding its operation. He will pursue his own professional interests as a member of the staff on which he is serving. He will discuss principles of administration and organization as vehicles for facilitating individual performance. He will demonstrate that science and technology that are put to work are as highly regarded as the more esoteric pursuits. In short, he will lead an active, productive professional life in the best land grant tradition.

He will anticipate the end of his tour by carefully analyzing the institution building process in which he has been engaged, the factors which have accelerated the process and those which have impeded it. He will discuss these issues with his host national colleagues and will summarize in open document an objective appraisal of institutional direction and progress. He will also assess and report his own professional accomplishments. He will arrange for continued professional contact and communication with colleagues at the host institution.

When he returns home, he will complete the professional obligations of his tour. He will give an analytic report to his department on the institution building implications of his activities and their possible application at home. He will report in an adequately professional form his accomplishments and observations and their relevance to his department's interest. He will maintain professional contact and interchange with his former colleagues.

If the above steps are completed competently, a returning staff member will have a favorable impact on his own institution for many years to come. It can also be expected that his institution would be pleased to have him serve overseas again after a reasonable period of time.

In summary, technical personnel generally should be recruited with the intention of becoming active participants in the host institution's programs, and their role should be carefully managed and tailored to achieve the following objectives:

1. They must engage in activities which will give them early visibility and acceptance, thereby accelerating their effective contribution.
2. They must contribute effectively and efficiently to the development of one or more of the basic requisites in institutional growth. This is their primary reason for going abroad.
3. They must enhance their own professional growth and stature, thereby reducing the personal and home institution costs in providing their services, and making technical assistance attractive to the best qualified professionals in the U.S. universities.

Team Leader Function

It perhaps seems strange that after fifteen years of experience the functions of the administrative head of the technical assistance team should be called into question. The fact remains, however, that the function and responsibility of the team leader has continued to be one of the most bitterly debated topics in the technical assistance experience. What are the reasons for this apparently anomalous situation? (7)

A Plethora of Expectations

The key to the difficulties is found in the discussion of the technical assistance organization in the preceding section. There it was seen that six distinct administrative entities set the goals for the project and feel a distinct responsibility for their achievement. The difficulties of describing the function and responsibility of the team leader has resided in the inability of these various entities to agree on the amount of responsibility the team leader should have.

The U.S. university signed a formal contract to discharge certain responsibilities. This responsibility often involved the reproduction in miniature form overseas of an institution similar to itself. This would normally call, therefore, for a team leader with administrative capability comparable to that at the highest levels within the U.S. university. The short-term nature of the contract, however, has been such that most U.S. universities have not been able to commit from their own ranks such competent administrative personnel. They generally felt that it was highly desirable for the team leader to be someone who understood the home university, its policies, and its personnel well enough to be able to administer the overseas activities of members from its own faculty. Since they have not been able to appoint as team leaders highly skilled and active persons from their own administrative ranks, they have had to use either personnel with less administrative capability or retired administrators from other institutions. An administrator from another university could not be given unlimited license to speak for the contracting U.S. university because of his lack of acquaintance with its policy, procedure, and personnel. It has similarly been difficult for U.S. universities to grant less experienced administrators as much freedom for administrative decision as the position itself warranted. Thus, the team leader typically found himself unable to speak authoritatively for the contracting university in administrative matters dealing with either the host institution or with A.I.D. in the field. Unfortunately, the responsible officer on the home campus to whom he had to defer in such matters usually knew too little about the project activities to be imaginatively helpful.

A.I.D. signed a contract with the U.S. university to perform certain functions in overseas projects, but considered it prudent to reserve to itself certain administrative functions and decisions. Therefore, the team leader found that he had to exercise his administrative duties not only under the overall guidance of his home university, but also within the supervisory restrictions of A.I.D. in the field. These restrictions were seldom, if ever, specified in the contract and therefore they often represented an almost day-to-day negotiation between the team leader and the A.I.D. mission. Since this project was normally an integral part of A.I.D.'s total commitment in agriculture in the host country, A.I.D. was interested in ensuring coordination between this activity and its other projects in the country. Furthermore, it felt that special problems of inventory control, personnel management, use of excess local currency and the overall manipulation of foreign policy dictated a rather tight reporting and supervisory control by A.I.D. The agency naturally looked to the team leader as the responsible project officer in all of these coordinating activities, even to the point of requiring of him many functions which others regarded as A.I.D.'s responsibility.

The host institution felt that it had the primary responsibility for its own development, and therefore it had to have the ultimate say as to who participated in such development, what their functions should be, and how these activities were to be carried out from day to day. The institution had specific expectations as to what should come from the contract team and looked to the team leader to deliver on these expectations. Again, these were spelled out only in very general terms in the official documents. Thus, the top administrator of the host institution looked to the team leader as his counterpart in the joint management of the team's input and impact on host institution development. He looked to the team leader for guidance in the total institutional organization and development, and more particularly for help in getting more outside financial support. He expected the team leader to promptly intervene in personality clashes and other awkward situations involving team members. He was willing to delegate very little authority and responsibility to the team leader for making changes within the host institution. This seemed perfectly logical and proper on the one hand, but in the absence of an overall plan and strategy it restricted the team leader's capability for introducing changes except through persuasion or other indirect approaches.

The team members looked to the team leader to help them get their families settled in the country, resolve educational and housing needs, clear their household goods through customs, obtain the necessary licenses and permissions for local operations, and do the myriad other things needed when U.S. families move to foreign soil. He had to interpret the contract in determining housing allowances, travel schedules, and other activities which were to be coordinated through A.I.D. He was the formal contact for all of the team members with the home university and with A.I.D.; any information, negotiation or interpretation which team members needed was transmitted through the team leader. The overall strategy for the project was the responsibility of the team leader, and team members looked to him for constant guidance in this respect. The team members were introduced to the host institution by the team leader, and he had to open the professional doors and set the stage for their effective performance.

The team leader himself had certain expectations for his role as administrator of a group of U.S. technicians. In his recruitment he was led to believe that he would hold a responsible managerial position and make a wide variety of decisions. He rather naively assumed that the full resources of the contract, of A.I.D. and of the host institution might be available for this particular project. He recognized that his major task was institution building, and this required, among other things, the development of an adequate communication and rapport with the host government, the business and commercial community, and the public at large. This was a type of activity that was not normally performed by host institution leaders and if it were to be initiated, it would only occur under the careful guidance of the team leader. Thus, he would expect to devote a major share of his time to the imaginative development of approaches and procedures which had been highly productive in the home environment. Finally, the maintenance of team esprit de corps was vital to the achievement of contract objectives. It was very easy for individual team members to lose perspective in the daily frustrations of coping with the unusual or the unexpected. It was the team leader's responsibility to maintain enthusiasm and productivity among the team members.

Weaknesses in Past Performance

Recruitment Problems. Most contractors have had difficulty recruiting for overseas assignment, particularly for team leaders. No institution has an excess of outstanding administrative capability, and the hard choice of picking among top administrators for extended overseas assignments brings this problem into sharp focus. The universities look first for someone with administrative experience. He also needs great imagination and flexibility so he can look at basic problems and devise solutions rather than merely transplanting solutions out of his past experience. He must have an unusual amount of energy since living in most of the underdeveloped nations is physically more strenuous as well as more demanding in mental alertness and vigor. The team leader must be capable of developing empathy for the host nationals with whom he will work, since he cannot perform effectively if they sense any dislike or disrespect on his part. He must be available for a relatively long period of time. The development of the confidence of host nationals and an understanding of their problems and their environment is a slow and tedious process and it is not transferable to his successor. Therefore, once the team leader has gained entrance, it is inefficient to repeat the process frequently. Finally, the team leader must be able to gain and hold the confidence of the U.S. university administration, of A.I.D. and host nationals, and he must be able to walk the uneasy path of assuring each agency that he has their best interest at heart.

Recruiting a person of this stature and rare quality is very difficult at best, and it has been almost impossible for U.S. universities to fill this position under the restrictive short-term contractual arrangements they have had with A.I.D. Yet, this is the most crucial single input which the U.S. university makes. It was documented repeatedly in this project that the quality of leadership given by the team leader set an upper bound on the level of achievement that could be realized by a project. Therefore, one of the first points which a U.S.

university should consider in deciding whether to enter a new contract or continue an existing one is whether it can supply this type of leadership.

Continuity of Strategy and Leadership. Institution building is a long-term process and progress seems painfully slow under the best of circumstances. If the goals or objectives are redefined frequently, or if the strategy for attaining them varies from year to year, progress is seriously handicapped. In the beginning of our research project, it was assumed that every team leader would have a well-defined strategy for accomplishing the contract objectives and that this strategy could be articulated by each member of the team. It was found, however, that very few teams had any semblance of an articulated strategy and this was due largely to the rapid turnover of leadership. It was further observed that without an overall plan and strategy agreed to by all parties, the major effort or points of emphasis in a project tended to change with every change in administrative leadership, whether in A.I.D., the host institution, or the team leader. Instability also was aggravated by the short-term contracts which required renegotiation of the mix and total level of inputs every two years or so. Thus, continuity of strategy and leadership has proved to be a particularly weak link in the total contract operation.

Lack of Confidence in Leadership. The difficulties in recruiting outstanding team leaders and in leaving qualified leaders in charge of the project for a long time have tended to cause all of the administrative entities to withhold complete confidence from the team leader. A.I.D. and host institution administrators expressed reservations to suggestions to appoint team leaders for five rather than two years. This reservation grew out of the frequent experience of having team leaders with inadequate qualifications and a fear of being stuck with such persons longer. This reaction places in bold relief the fact that the team leader position has been inadequately conceived and inadequately staffed in the past.

An Optimum Team Leader Role

Experience indicates that the ideal team leader would possess the qualifications and be recruited for the role described below.

He would be selected from the administrative group of the contracting U.S. university, where he had demonstrated considerable imagination, flexibility, and stability in his administrative activities. The U.S. university would have high confidence in his ability to implement university policy and contract objectives and to exercise judgment in its interpretation overseas. He would be able to develop a liking for the host nationals with whom he would be working, and he would be an inveterate optimist. He would be recruited for at least five years' service.

Before going overseas, he would spend at least two months studying the process of institution building and learning the political and social forces which affect its progress. On location, he would be provided with the services of a competent administrative assistant to relieve him of most of the administrative details of contract operation. He would spend his early months learning about the host institution's history and its relationship with host government. He would become intimately acquainted with the power structure of the host institution and host government and would strive to understand their interpersonal relationships.

He would develop a general strategy and plan of operation in close cooperation with the host institution administration and with A.I.D. if this had not already been done. He would be assured that his entire team understood the overall strategy and their individual roles in it. As a minimum, this strategy would specify the mix of inputs which the contract would make, the areas to receive greatest emphasis, and the time and rate at which these would change. The strategy would also include specific plans for bringing the host institution into intimate contact with host government, for developing rapport with the public, and for giving the institution high visibility among its constituents.

He would be given much responsibility for making decisions within broad policy guidelines for team operations and overall plans for achieving stated goals. He would coordinate his activities so as to sharpen the focus of A.I.D., the U.S. university, and the host institution on the objectives to be achieved.

It is difficult to see how a contract project could be expected to perform efficiently without a team leader who has most of the above qualities.

In summary, the role of the team leader must be redefined with a view to attracting and justifying the services of exceptionally qualified persons. This is the key position in the total technical assistance institution building process. The development of an effective strategy and its efficient execution depend on being able to fill this position with a capable person on a long-term basis, and the contracting terms should be negotiated to facilitate such recruitment. U.S. universities should not initiate or renew contractual commitments unless they are confident of being able to supply such leadership.

Participant Programs

Program Objectives

The quality of an institution depends first and foremost on the quality of its personnel. They will determine the nature of the program, its relevance to the country, and the vigor and competence with which programs will be pursued, and these in turn will affect almost completely the level of support which the institution receives. For these reasons the participant program is generally regarded by both U.S. and host national personnel as the most important single element in the entire technical assistance process. At the same time, however, it is realized that the impact of the participant program is delayed in its manifestation and is difficult to measure in a short run.

All parties generally agree that the overall objective of the participant program is to provide the foundation for building indigenous institutions. However, the specific objectives in individual programs may be highly varied. From the standpoint of U.S. policy, the objective is to train a cadre of host nationals who have the qualities of leadership, modern technical capability, and an attitudinal orientation toward resolving the country's agriculture problems. This program has generally been regarded as vital to the processes of human resource development which unlock the doors to modernization. A report to the U.S. Congress in 1964 stated "the objectives of the A.I.D. training programs are not only to improve the technical, professional and managerial skills and knowledge, but also to introduce attitudes and values essential to development activities and to increase an appreciation for the need for social as well as economic growth, and to demonstrate insofar as possible that these are inseparable."

From the standpoint of the host institution, the objectives of the participant program are more nationalistic in character with a strong sense of urgency for building indigenous institutions which can be freed as soon as possible from reliance on the outside world for direction and technical coaching. There is a much stronger sense of urgency on the part of host institution leaders for their trainees to obtain degrees, titles, or other certification that they are indeed modernized in the eyes of the world. Rarely was a participant program found that was based on filling deficiencies in a specific institutional blueprint.

The objectives of the individual trainee are much more likely to be strongly self-centered with a view to improving his own economic and social status, whether his future lot be with his current employer or elsewhere. Therefore, he will be more interested in programs which make him marketable and respected in his society than in filling a particular void within his own institution.

While these different sets of objectives are not mutually exclusive or even highly incompatible, they must at times be regarded as somewhat competitive in determining the best allocation of resources for this function. Thus, it is a common experience to send a participant for training along highly practical or vocational lines as a means of satisfying a serious need within his institution. Upon arrival in the U.S., however, the participant commonly makes every effort to convert his program into one of obtaining an advanced degree. Many U.S. "advisors" want to send program participants to land grant institutions which are known to have strong applied programs which are more closely related to the level at which problems must be attacked in the host country. The host institution, on the other hand, will strongly urge that their staff member be sent to a prestige institution even though the work he will get will be much less relevant to his nation's development. While these discrepancies in objectives have proved frustrating in the details of operation, they have not seriously detracted from the overall usefulness or desirability of the program itself.

The effectiveness of the participant program can be illustrated by this typical comment from a department head at a host institution: "Training of the personnel now on campus is the greatest single accomplishment through the contract. As a product of the contract, they have advanced degrees, they were able to receive promotions, they had higher market value, and they were more critical of situations that existed and probably more unhappy with the status quo, but this made them more effective people. They have demanded and taken more freedom. These things are rated high on the priority list."

Type of Training Provided

There were 2,360 participants under the sixty-eight university-A.I.D. rural development contracts in thirty-nine countries during the period from 1952 to 1966. Table 6 shows the distribution of these participants among the four regions of the world and also the proportion of participants which were sent for degree programs from each region (17).

Table 6

The magnitude of the participant program and the proportion of participants on degree programs, by regions, since 1952.

Region	Total Number Participants	Percent Participants for Degree Programs
Africa	179	64
Far East	520	59
Latin America	417	49
Near East and South Asia	1,244	70
Total	**2,360**	**64**

The non-degree programs for participants were generally of two kinds. One group consisted of administrative personnel who were sent on short-term assignments to observe administrative procedure and institutional organization, and to gain broad perspectives on institutional role and operations. The second kind of non-degree program was for technical personnel sent on short-term assignments to gain knowledge about specific technical areas or to become competent in certain technical skills or procedures. Programs were worked out for both groups, either by the contracting university or by A.I.D., and they have been extremely productive in giving insights and have upgraded technical capability in many persons. As an additional dividend, both groups have generally returned home as appreciative ambassadors of international good will.

It has been particularly strategic and productive to bring host institutional leaders to the U.S. and other countries to give them first hand observation of how institutions function in different environments, how they are organized to accomplish certain objectives, and how they relate to the public. This has been accomplished through several approaches, most of them highly successful. In India an Indo-American team was formed to visit a variety of U.S. institutions, and this formed part of the political and institutional understanding that resulted in the formation of a land grant type institution in seven different states. Many host national administrators visited the U.S. university contractor in a reverse executive visit. More recently the State Department has provided grants so carefully chosen host country leaders could visit institutions, companies and areas of their own choosing, and many administrators from agricultural universities have been included in this program. In several instances representatives of the government were included in a group from a host country and the Rockefeller or Ford Foundation cooperated in providing their expenses. All of these visits have had a great impact in raising the ceiling of comprehension, vision and determination in individuals who determine policy and make overall decisions in the host country.

The sixty-four percent of the participants who were sent for degrees in academic institutions represent a major investment in institution building, by both the host institution and the assisting agency. It also represents a major investment in years by the trainees themselves. The types of degrees sought are shown in Table 7. There are two noteworthy features in this table: many of the participants from Africa and Latin America were trained at the bachelor's level, and a high proportion of those coming from the Neast East and South Asia obtained the Ph.D. These two pieces of information document dramatically the level of academic development of host institutions in the respective regions.

Table 7

Types of degree programs by regions (percent).

	Bachelors	Masters	Ph.D.	Total
Africa	67	31	2	100
Far East	1	91	8	100
Latin America	45	45	10	100
Near East and South Asia	4	67	29	100
All	**14**	**68**	**18**	**100**

The participants who were trained through a university contract were sent to their own U.S. campus for training in seventy-one percent of the cases. While some contracting universities felt that it would be desirable to avoid the inbreeding effects of sending all of their participants to the same institution, the overriding rationale of ease of administration and the possibility of sympathetic care for participants seemed to prevail in most cases. Some objection was encountered at host institutions, however, to sending all of their staff to the same U.S. institution. Some wanted their institution to have the advantage of perspectives and organizational outlook represented by a variety of U.S. institutions, and in some cases they strongly urged that their staff members be sent for specific types of programs to institutions other than the contractor. A few university contractors have insisted on scattering the participants broadly over the American scene and in these cases they have been particularly sensitive to the desires of the host nationals in this respect.

In general, participants have followed the normal programs offered by the U.S. universities although in fifty percent of the cases it is reported there was some tendency to tailor the U.S. program to the special needs of the participants. The most popular areas of concentration have been in the plant and animal sciences, with the basic sciences, humanities and veterinary medicine coming next.

Selection of the Participant

As a general policy, participants are selected on the basis of their potential for strengthening the institution from which they come. Such a criterion, however, leaves considerable latitude in individual cases, and there has been a suspicion in some quarters that selection was prejudiced by political influence or by other factors not directly related to the primary purpose of the program. Team members and team leaders were asked whether they felt that the best qualified persons had been selected for participant training, and in at least eighty percent of the cases they felt that this was true.

The process of selecting trainees for the participant program varies greatly from one country to another and this has an inevitable effect on the basis for selection. Host institution staff members and other host country persons are generally selected for participant training by the U.S. university contract team in consultation with host institution administrators. They are chosen from eligible and qualified persons who represent potential strengthening of important areas within their institution. Since instruction in U.S. universities is in English, this imposes a serious restriction on the eligibility list in most regions. It is constantly reported that many of the most capable host nationals cannot be considered for training programs because they lack proficiency in English.

From an institution building standpoint, it would seem desirable to form a list of key positions which should be staffed by persons with outside training and to select trainees against such a list. The list would be derived from the overall plan developed cooperatively by the host institution and the university team. This procedure was seldom followed in the field in part because the dearth of qualified candidates precluded their selection according to needs in specific areas of the host institution. Thus, it was common to find some departments with several staff members who had foreign training while other departments had none at all. This situation often reflected the attitude of the departmental leadership in recruiting staff members who were qualified and interested in overseas training. The necessity, however, for integrating the participant program closely with institution building plans is poignantly illustrated by the following comment from a host institution official: "Probably one of the mistakes of this contract was the omission of participant training. Due to the fact that this function is retained by A.I.D., there is little or no coordination with respect to it and the contract effort. Consequently, little institution building of a long-run nature has been accomplished."

One of the major uses for short-term programs for administrative personnel was to create an environment favorable to the selection, training, and later utilization of better trained staff members. It was a common experience to find returned trainees who were highly frustrated because their immediate superior was unsympathetic to their new ideas or felt threatened by their new concepts and skills. One solution to this problem was to send the administrator on a short training program to broaden horizons and excite his imagination in the better use of highly trained young personnel.

Impact on the Host Institution

The impact of the participant program on the host institution must be measured in terms of its potential for improved productivity. The quality of teaching, research, administrative leadership and other institutional functions are directly related to the technical background and training of the staff. The holding of a master's or Ph.D. degree is not in itself an adequate measure of a staff member's competence, but it is some indication of the improvement in his technical capability. An examination of twenty-five of the institutions in this study indicated a total increase of 1,110 advanced degrees, of which 326 were Ph.D.'s, in recent years. Thus, the participant program has had a major impact in upgrading the technical background and competence of host institutions' faculty.

The fact that many of the participants were trained at land grant institutions in the U.S. means that they had an unusual opportunity to see first hand the functioning of this type of organization. While they were usually deeply engrossed in course work, most of the participants who studied for an advanced degree at a land grant institution had occasion, at least in summertime, to see more of the university's state-wide work in research and extension and to observe more widely its general administrative functions. It was generally observed that returned participants represented a genuine ferment in their dialogue regarding their own institution's role, responsibility, and form of administration in serving its society.

One of the objectives of training host nationals in the U.S. is to instill a philosophy of the U.S. land grant institutions. Specifically, this is designed to create a sense of purpose for the individual and his institution in serving the agriculture of his own country. The measurement of this type of impact is difficult, but it was observed in Chapter VI that some progress was made in this project in the techniques of assessing development along this line. While the specific techniques themselves have not yet been used widely, there is a general feeling that many of the land grant type attitudes and approaches have been seeded in many host institutions, and there is a strong relation observed between the numbers of returned participants and the prevalence of the land grant philosophy.

It is easy to find bits and pieces of the land grant idea in each of the thirty-eight projects which are active today and in most of those which have expired. Host university programs have been altered by changes in course content and in curriculum configuration. Research programs have reflected greater concentration on host country needs and extension programs have been oriented along U.S. extension lines. Everywhere there are bright, young, energetic and enthusiastic host nationals who were trained in the U.S. and who are eager to put that training to work in their host country. Many of their ideas run contrary to established tradition and to existing bureaucratic power structure. Their effectiveness will continue to be inhibited until there is a large enough group with the same philosophy and ideas to form a critical mass which can protect itself from the status quo and until the new ideas become a part of the tradition of their institution. A few institutions which have benefited from the participant program already show a high degree of maturity in this respect. There are perhaps a dozen more which are showing strong progress in this direction. The remainder, however, will still require a considerable amount of participant training to bring them to a stage of self-sufficiency.

Suggested Improvements

Various suggestions have come from both host nationals and U.S. personnel for improving the participant program. Most of these refer to the academic programs leading to an advanced degree.

The criticism most frequently heard regarding U.S. programs for foreign students is that they are geared to the highly developed society of this country, and hence they are too specialized and narrowly conceived for participants from the developing countries. Since students have been granted rather wide latitude in selection of courses to suit their particular needs, the course work itself has not been a major source of criticism. Several problems arise, however, with respect to their research experience. The participant usually finds himself taking a rather specialized segment of a larger problem being studied by his major professor and being assigned the chore of accumulating the necessary data by the use of some highly specialized and sophisticated set of instruments. In this exercise he learns the discipline of research and the necessity for adequately precise data to make scientific inference and for bibliographic documentation to give relevance to the topic, and he gains experience in setting forth his findings clearly and understandably. He does not, however, have the opportunity of looking broadly at a variety of problems and determining which of these shall claim priority on his research resources. He does not learn how to document the research needs of a particular region nor to understand which of these is the most limiting and restrictive. Therefore, upon returning home he often encounters the frustration of wishing to continue along the lines of his specialized study but not finding the instrumentation available nor an interest on the part of his host institution in supporting such research. This leads to disenchantment on the part of both the participant and his home institution.

A second major criticism by the administrators of the host institution is that the participants do not gain enough experience in engaging in practical research under the direction of and in cooperation with experienced U.S. researchers. Thus, they learn very little about how to organize research programs and to carry them out effectively in the field or laboratory. They learn little about budgeting for research or for tailoring such programs to an available set of resources. They learn little about looking around imaginatively for ways of accomplishing needed research with the limited equipment and other resources available in their country. Thus, many administrators at the host institutions urge that the participants spend an additional three to six months beyond their degree in gaining just this type of experience.

Yet another serious problem encountered in the participant program is not directly related to activities in the U.S. Psychologically, the participant is prepared for his greatest effort in his home country immediately upon his return. He is enthusiastic about his new ideas and competence and the many problems on which he would like to work in his home country. Typically, however, his own institution is not prepared to provide the necessary resources to support these new activities. Therefore, he often finds himself with almost no resources at his disposal and he must compete with his politically more powerful, though technically less qualified, colleagues for access to the meager resources of the institution. If he must spend the next year or two in fruitless battles for these resources, he may well have lost most of the enthusiasm and initiative which were instilled in him during his graduate study. The participant program seldom, if ever, provides any support upon his return home. This is now regarded as a serious deficiency which merits early attention.

In summary, it is clear that the selection of participants should be more closely tied to the needs of the various units in the host institutions, and that the type of program be closely fitted to the institution's developmental needs. This would represent a departure from A.I.D.'s generalized policy on selection of participants and the programming of their training and suggests that programs be specifically tailored to institutional needs. There must be more imaginative ways of providing language training to widen the base for selection of candidates and increasing the flow of participants early in the programs. A more practical and relevant research experience must be developed as part of the advanced degree program. Much more attention must be given to capitalizing on the enthusiasm and technical capability of returned participants. The post-participant period must be strengthened and included as an integral part of the technical assistance institution building responsibility.

Basic Factors Conditioning Success

VIII

Success in any human enterprise depends on the environment and the intelligent use of appropriate resources. Sharp differentiation between the two is not possible because intelligent use of appropriate resources will maximize the effect of favorable factors and minimize the effect of unfavorable factors in the environment. Success requires a strategy which does just this.

The available evidence on the university contract program in rural development indicates that there has been inadequate attention given either by A.I.D. or by the universities to the development of modes of action which would capitalize on the favorable environmental factors and discount the effects of the unfavorable factors. In every project there are certain environmental factors which are almost universal in character and others which are peculiar to the specific project. Because the university team is facing significant problems which are specific to the local environment, often more attention has been directed to such factors than to the more universal ones.

This section of the report will be devoted to those factors which this research has identified as universal in character or at least widely applicable. A note of caution must be given. The environmental factors which we have called universal gradually and almost imperceptibly merge in those which we have considered more specific to certain types of projects or areas of the world. The dividing line might have been drawn elsewhere. Probably no factor is either absolutely universal or specific. This study has been confined to A.I.D. university contract projects in agriculture and it is this universe which is discussed here.

For convenience in presenting the findings, these universal factors of the environment have been divided into one group favoring and one constraining successful operation of university contract projects in rural development. This, of course, is an artificial grouping, for each factor is in fact a complex with many features pushing and pulling in opposite directions. The suggestions for remedial action may not be universally applicable but the evidence collected in the study indicates they will be useful under widely varying conditions.

Factors Favoring Successful Operation

High Regard for Education

The high level of educational attainment, the heavy expenditures of private and public funds for education, and the strong beliefs that education must be an important part of any program for giving equal opportunity to all of our citizens attests to the high regard in which our citizens hold education. Education has been the principal pathway of the upward pattern of social mobility which has characterized our history. As the general level of educational attainment of our citizens has risen, so have the aspirations of parents for the education of their children.

Our citizens hold their colleges and universities in high regard. They expect leadership from their universities, not only in education, but also in research and scholarship, in service to their constituents, and in the development of public policy. The confidence which our citizens place in our universities for guidance in domestic affairs engenders confidence that our universities can render equally valuable service in the less developed countries. This is particularly true with respect to the confidence of our citizens in the land grant college philosophy of a problem-solving, service-oriented institution. But just as the high regard of our citizens for their universities can be used to strengthen the university contract projects, it can also lead universities to overestimate their capabilities, and to accept tasks abroad which are either unsuitable in character or beyond their capacity in size.

In the less developed countries, education also holds a high place in the aspirations of government leaders and citizens. The general level of educational attainment is low and the leaders look to education to provide a pathway to social, economic, and political development. The parents look to education to provide upward social mobility for their children. Only a small proportion of the population of the less developed countries hold university degrees. Such individuals are usually in policy-making or administrative positions. U.S. university teams which come to the host country to assist in building a college or university start with the advantage of a good reputation and of joining in a project having popular support.

Just as the high regard in which U.S. universities are held at home may encourage them to accept a task beyond their capabilities, so may the high regard of the less developed countries for university degrees encourage them to develop top-heavy educational systems. The high regard of most less developed nations for college degree programs should not encourage U.S. governmental agencies or universities to lend their support to the development of a poorly designed educational system. They should, however, give all possible assistance to the host country in determining an appropriate balance of educational facilities.

The high regard for education, both at home and abroad, is a priceless asset both to the U.S. universities and to A.I.D. in the university contract programs of rural development. It can be used to advantage and it should not be dissipated by university acceptance of tasks abroad which are either unsuitable or beyond their capacity.

A Large Reservoir of Professional Agriculturists

There are at least 30,000 agricultural and home economics professional workers associated with the agricultural colleges, experiment stations and extension services of the land grant institutions. The use at any one time of 500 of these workers would allow considerable expansion of the present university contract program in rural development (Chapter V). Nowhere else in the world is there an equal reservoir of talent. However, it would be a mistake to assume that no sacrifices are entailed in the detailing of trained agriculturalists from the universities to the university contract programs of technical assistance. There is now a shortage of trained agriculturists in our country. The land grant colleges find it difficult to recruit as many high quality people as are needed for their domestic programs.

The fact that the agricultural colleges have the largest reservoir of high quality professional workers is a significant factor favoring success of the university contract programs of technical assistance in agriculture. An examination of how well this favorable factor has been used reveals a generally good record, but with some very poor choices of personnel. Overall, the objective measures of quality of the team members are reassuring. Practically all of them had the bachelor's degree and almost half had a doctoral or professional degree. About two-thirds were in the most productive age period, thirty to sixty. Half came from the staff of the contracting university and three-quarters from university work. This may be considered a remarkably good record when we consider that several of the overseas tasks were at the vocational school level, where doctoral degrees are not common in this country. U.S. university staff members are seldom experienced in teaching at the vocational or diploma school level, hence staffs for such activities are best drawn from sources other than the university. Although the overall quality of the U.S. team members has been reasonably good, improvements can and should be made. Four adverse factors have kept programs from securing adequate numbers of quality personnel.

First, departmental programs in universities generally suffer when key staff members undertake two-year or longer foreign assignments.

Second, the professional growth and careers of faculty members may suffer when they undertake long-term foreign assignments.

Third, inadequate attention has been given to the development of job descriptions in the planning of projects, with the result that personnel have sometimes been misassigned.

Fourth, internal and external pressures have sometimes caused universities to accept overseas loads which were heavier than their capabilities.

Although the universities and A.I.D., working independently, can reduce the effects of these constraints, really effective action will require joint efforts to:

1. Develop international programs in the departments of participating U.S. universities so that overseas assignment of staff members contributes to an ongoing departmental program and to the professional growth and career of the staff member serving overseas.
2. Improve precontract planning and contracting procedures so that more is known about the qualifications needed for each team member and about the ability of the institution to field a team of the indicated size and character, without damage to domestic programs.

Dedication of A.I.D. and University Personnel

"Helping others to help themselves" has a basic appeal to many individuals (Chapter V). Most A.I.D. personnel and university team members entered these tasks at least in part because of a personal desire to serve the needy in the less developed sections of the world. This dedication to the basic task is a powerful morale builder when difficulties arise.

The common allegiance to the idea of helping others to help themselves has helped to hold A.I.D. personnel and university team members together when other forces were tending to pull them apart. At times there have been a small number of A.I.D. personnel who were antagonistic to university programs and personnel and a small number of university team members who have been antagonistic to A.I.D. policies and personnel. However, in only a few cases has such antagonism seriously interfered with the operation of the university contract project. Friction and minor irritations between the university team members and A.I.D. personnel sap the enthusiasm of the most dedicated individuals. If personal commitment to the task at hand is one of the keys to success, persistent minor irritations may become a major cause of failure. A.I.D. and the universities should regard dedication to the technical assistance task as an important criterion for the selection of overseas staff and should be constantly alert to the necessity of eliminating sources of irritation and friction in order that the priceless ingredient of devotion to the task is not lost.

Land Grant College Philosophy

What is now commonly thought of as the land grant college philosophy originated in the agricultural colleges of the land grant institutions. It was there that the faculty first became concerned with solving practical problems. Research on such practical problems produced findings of use to the farmers and extension programs were established with a service orientation which effectively linked the college with the rural people.

In most of the less developed nations, the U.S. land grant colleges of agriculture are held in high regard, both by host country university and government personnel. Hence, a sisterhood relation between a U.S. land grant college and a host country university starts in a favorable climate. In the great majority of cases, this initial good will aided materially in carrying the project safely through periods of friction, although some serious mistakes have been made by both A.I.D. and university personnel.

Technical assistance is essentially a problem-solving, service-oriented, community-related activity. The U.S. team member is confronted with a host of new problems on his arrival in the host country. Only as he finds solutions to these problems and gives service to his associates can he be successful in his technical assistance tasks. The fact that most U.S. team members have had several years of experience in attacking the problems which are characteristic of American agriculture and in giving service to our rural communities has conditioned them to a problem-solving, service-oriented approach to the problems and the people of their new location. Not all U.S. team members have had such experiences at home, and not all who have had such experiences have been able to make the necessary adaptations to meet the problems of a foreign situation. But, it does seem clear that such a background is helpful, and that the good reputation of the land grant colleges of agriculture and their staffs have contributed much to the successes of the college contract projects in agriculture.

The usefulness of the land grant model in building institutions to serve the agriculture of the less developed nations is discussed in Chapter VI and a recommendation regarding its use overseas is presented in the Summary and Recommendations chapter. Briefly, the evidence is clear that the philosophy and spirit of the land grant college is useful and applicable in the less developed countries, but that great care must be exercised in developing a structure which enables expression of that spirit and is compatible with the other institutions serving agriculture in the host country.

Attitudes and Organizations of Land Grant Institutions

The many activities of the U.S. state universities and land grant colleges have resulted in the development of basic attitudes and organizations with considerable flexibility and adaptability. Long experience in varied on-campus and off-campus instructional, research, and service programs has developed a sympathetic attitude among university administrators toward the new problems associated with technical assistance projects.

Most of the land grant colleges and state universities, who had long accepted state and national responsibility, found it easy to broaden their horizons to include international teaching and research programs. The willingness to accept foreign technical assistance responsibilities came more slowly in many of these institutions.

None of the land grant colleges or state universities had any specific mechanisms for accomplishing technical assistance activities at the start. Some of them developed such mechanisms relatively quickly and others have taken longer to develop the needed administrative structures. Many of the U.S. universities have now established assistant or associate directors of international agricultural programs. A related type of action, indicating the desire of the university community to support technical assistance activities, is that of the establishment in Washington of an International Programs Office of the National Association of State Universities and Land Grant Colleges.

There are many facets of the technical assistance projects which present special problems for both the academic and business staffs of the universities. In those universities with successful A.I.D. contract projects, the administrators, both academic and business, find that such projects demand a disproportionate share of their time, so far as the size of the budget and number of people are concerned. University administrators should recognize that the difficulties inherent in the operation of overseas technical assistance projects will require much time if the project is to be successful, and should balance this requirement against the importance of the project to their institution, nation, and world.

University Field Team Financial Support

Considerable difficulty was experienced in determining an appropriate level of financial support for this type of university activity at the start, and a few of the early teams were inadequately financed. However, in general, the U.S. field teams have received adequate financial support. There yet remain some areas of disagreement regarding the appropriate level of fringe benefits. Some of the present fringe benefits provisions are more favorable for university contract personnel than for A.I.D. personnel and others favor A.I.D. personnel. A.I.D. and university personnel are employed under quite different basic conditions and it would be unreasonable to expect them to have identical financial fringe benefits. In any event, personal circumstances determine in large part the relative value of each of the various fringe benefits. Our research project made no attempt to determine the appropriateness of the various provisions relating to fringe benefits. Our findings do indicate that in some situations this has been a cause of irritation and friction between A.I.D. and university personnel. In spite of some minor problems, the financial support has been adequate to enable team members abroad to devote their attention to the task without added worry over financial matters.

Factors Serving as Constraints on Successful Operation

Inadequate Knowledge of Technical Assistance and Institution Building

At the start of the Point Four Program, workers in U.S. colleges of agriculture had essentially no experience in technical assistance, except among people of their own culture, where there had been some four decades of agricultural extension. Such skill or art as was acquired and such studies as were made were practically all devoted to the mainstream of the U.S. agricultural extension program with a reasonably homogeneous population. It is true that the Negroes formed a large subculture, and some agricultural extension work was done on our Indian reservations and with the considerable number of rural Mexican-Americans of the border states. But these extension efforts were more restricted in size and in geographical area than the extension programs involving the large body of rural people with Western European cultural backgrounds. The research studies were even more disproportionately directed to extension work with farm people of the dominant cultural pattern. In the 1930s, after some two decades of cooperative agricultural extension programs, meager attempts were made on an organized basis to give formal pre- and in-service training in extension methods. However, most of the agricultural extension personnel either were self-taught or learned through apprenticeships.

In the early portion of foreign technical assistance programs in agriculture, many people failed to realize that programs and methodology which had been successful in increasing agricultural production in the United States would not work as well in far different cultures. Certain "know how, show how" projects were patterned closely after U.S. extension programs. At the same time, other projects were established which emphasized the development of indigenous agricultural schools, ranging from vocational high schools to collegiate level institutions. Later, the principal emphasis in most countries was placed on the development of colleges of agriculture for the education of professional workers. More recently, the significance has been recognized of developing strong research programs on problems important to local agriculture. Thus the prime thrust of practically all university contract projects in rural development is now on giving technical assistance in building institutions for agricultural education and research.

The lack of knowledge in institution building is even greater than is the lack of knowledge in technical assistance. Although American universities, including the land grant colleges of agriculture, have developed considerable art in building institutions of higher education, there has been remarkably little fundamental research dealing with the subject. Most of the knowledge of institution building comes from studies of institutions other than those of higher education. The lack of knowledge is particularly acute in the realm of our own land grant colleges of agriculture. Those who have worked closely with two or more of our agricultural colleges know that they have certain common features, but also many important differences. These differences encompass almost the total range of identifying characteristics, including traditions, organizational structures, operating procedures, degree of emphasis on various aspects of their programs, and relations with other agencies and institutions. The lack of careful study of the differences among the land grant colleges and an analysis of the significance of the factors responsible for such differences has been a constraint on successful operation abroad. Knowledge of how relatively minor variations in a generally uniform United States cultural pattern influenced the development of U.S. land grant colleges of agriculture could be used to help the less developed nations build agricultural colleges which are attuned to their needs and their cultures.

Due in part to the difficulties encountered in U.S. attempts to furnish technical assistance to foreign nations and in part to the greater availability of funds for social studies research during the last decade, recently there have been many studies of technical assistance and several studies of institution building. Many of these research efforts have been case studies dealing with specific projects. A few have been more broadly based studies of some particular aspect of technical assistance. During the last three years several significant papers have appeared from the Inter-University Research Programs in Institution Building.* These papers have made worthwhile contributions to the understanding of interrelationships among the factors involved in institution building. They have been widely used, and have been very helpful in the course of this study. As valuable as these studies are, there is still a serious lack of knowledge of the factors affecting the successful application of technical assistance to building institutions to serve agriculture in the less developed nations. This knowledge gap is in large measure responsible for many of the common characteristics of the university contract projects which were designed to assist the host country in building useful institutions for agricultural education and research (Chapters IV and VII). Some of these are:

1. Concentration of technical assistance activities on the technical—as opposed to attitudinal—aspects of change.
2. Vagueness of project goals, work plans, and criteria of progress.
3. Tendency for team members' activities to be proliferated and only loosely related to overall university development.
4. Failure of A.I.D. and the U.S. universities to develop and articulate a common strategy for accomplishing the overall task.
5. Tendency to concentrate upon the development of physical facilities and technical competence of the staff and to give only limited attention to helping the host institution to find its optimum role in the nation.

The deficiencies in knowledge of the principles on which institution building in technical assistance depends and the necessary underlying theory were serious obstacles in the present study (see Chapter I for recommendations). It was a frustrating experience to attempt to assess the effectiveness, relevance, or importance of various factors and activities when there were no established guides and criteria. Therefore a great amount of energy of this research project was necessarily diverted to an examination and postulation of theory in several areas. Below is a partial list of these efforts and it illustrates the magnitude of this problem. Each of these studies developed very useful insights into its particular area, and each one deserves much further research and testing.

---

* Research Headquarters, University of Pittsburgh, Graduate School of Public and International Affairs, Pittsburgh, Pennsylvania.

1. *Jones* and *Blase* (5) developed a book-length manuscript in examining the total technical assistance complex.
2. *Warnken* (18) attempted to develop a theoretical framework for determining the best strategies for making the major inputs in technical assistance.
3. *Potter* (9) examined the relevant criteria against which projects could be evaluated.
4. *Miller* (7) examined the theory of leadership, management, and organization as related to the task of a team leader.
5. *Ellsworth* (3) in his study of the extent of administrative unity within the technical assistance complex, made certain contributions to theory.
6. *McDermott* (6) and *Atkinson* (1) each studied procedures and strategies that are perculiar to technical assistance institution building as a frame for understanding A.I.D.-university relations in the field.
7. *Rigney* and *McDermott* (14) built a construct to describe the role of the "advisor" overseas.
8. *Roskelley* and *Rigney* (16) developed an approach to measuring institutional progress and maturity in terms of the land grant philosophy.
9. *Derge* and *Souder* (2) developed a set of hypotheses for using the Inter-University Research Project in Institution Building model in determining the extent to which an institution satisfies host country needs.

Failure to Use Existing Knowledge

Equally serious and more difficult to understand is failure to make full use of the knowledge which does exist in the fields of technical assistance and institution building either by A.I.D. or the universities. This fact shows up clearly in the findings of this research (Chapters IV, V, VI and VII) in the areas of:

1. Orientation programs for A.I.D. and U.S. university personnel.
2. Development and articulation of strategy.

3. Subjects discussed by A.I.D. mission and U.S. university team personnel.
4. Role of executive visits of U.S. university personnel.

Even though there are wide gaps in the knowledge of technical assistance and institution building, many university, A.I.D. and other personnel have acquired considerable skill or art in these fields, both at home and abroad. The findings indicate that the formal and informal orientation programs of A.I.D. and the universities give inadequate attention to these subjects in general and that even less attention is given to the specific problems of building problem-solving, service-oriented institutions for agricultural education and research in countries with European rather than U.S. patterns of institutions. In the universities, the total program orientation of team members to the broad objectives of the university contract is practically always informal, usually haphazard, and seldom adequate. Very few U.S. team members have had either training or experience in technical assistance when they first become a member of a U.S. university overseas team. Even fewer have had training or experience in building an educational institution. Neither A.I.D. nor the universities have made good use of the available knowledge and skills in their orientation of U.S. team members in these two aspects to be undertaken.

Failure to use the available knowledge shows up in the fact that only rarely did this research find evidence that team members knew of any agreed-upon strategy for achieving the overall institution building objectives of the project. Even more rare was participation by either the university administrators or A.I.D. personnel in the development and utilization of a broadly based strategy. Of course, there was joint high level participation in the development of a budget and in selection of staff and participants, but the team leader and, all too often, the team members were on their own with respect to strategy. The failure to develop a cohesive strategy inevitably leads to the concentration of each team member on the technical aspects of his own assignment with little or no attention being given to joint team action to bring about attitudinal or other changes. The lack of a joint strategy for operations in the host country usually reflects the fact that little use is made of the knowledge which is available on institution building. Failure to agree on the strategy by A.I.D. and university personnel is often accompanied by failure to agree on areas of responsibility and criteria of progress.

The short duration and ceremonial character of most executive visits provides convincing evidence that little use is being made of the skills which the experienced land grant college administrators have acquired in institution building. The application of such skills to the development, modification and operation of an appropriate strategy could be most useful and in the majority of cases is much needed. The failure of experienced college of agriculture administrators to give such substantive help to the team leader in institution building is a product of many influences. The pressure of other duties and responsibilities has prevented most university administrators from codifying and articulating the rich store of skills which have come from broad and varied experiences in their own institution building efforts, and this failure blinds them to the twin facts that the project team needs help and that the administrators' skills can be useful. A word of caution is needed. The findings indicate that the most skillful administrator may do far more harm than good either by dictating strategy or by serving an operating function if either is attempted without a thorough knowledge of all factors in the local environment. Such knowledge cannot be acquired in a visit of a few days which is heavily loaded with ceremonial functions. Such ceremonial functions are important and useful, but they cannot be expected to give the intimate knowledge of local conditions necessary for an application of the administrator's skills to the solution of difficult problems (see Chapter I for recommendations).

Inadequate Knowledge of Agriculture in Developing Countries

Over the past century, the land grant colleges have been engaged in the necessary basic and applied research and in the development of principles, policies, and procedures for the improvement of agricultural production and the development of the rural economy in the U.S. Many of the basic facts and principles developed during this period have proven to be useful in many sections of the world. Unfortunately some have assumed that the knowledge generated under American and European conditions would provide the answer to the problems of the less developed countries, many of which are in tropical climates.

Rural development occurred in the United States under conditions which were distinctly different than those now present in most of the less developed countries. In the U.S. there has always been a supply of potentially good agricultural land beyond that needed to produce enough high quality food to supply the wants of the nation. In many of the less developed nations with large populations, the quantity and quality of food production are pitifully inadequate for the number of people and there is little new land available for development.

In the U.S., rural development has occurred under overall conditions of continued labor shortages, even though there was a labor surplus on the farms—in other words, economic and industrial development have kept pace with the growth in population. In many of the more populous and less developed countries, population has grown faster than food production and industrial development.

In the United States, the infrastructure serving agriculture developed as rapidly as agricultural production increased. In fact, the developing infrastructure served as a stimulus to agricultural production. In most of the developing nations, the infrastructure serving agriculture is inadequate to serve the needs. In general, public policies of the United States dealing with land settlement and ownership, credit, prices, and marketing have favored increases in agricultural production. This is not true in many of the less developed nations. All of these differences between conditions in the United States and in the less developed nations pose new problems for the agriculturists and others of the U.S. who are assisting the less developed nations to develop their rural economies. In addition, each culture possesses its own customs, traditions and taboos. Those of the U.S. are different from those of many of the less developed nations. Some practices and policies appropriate to U.S. conditions have in many cases proven to be inappropriate elsewhere.

In addition to the social and economic differences between the U.S. and the less developed nations, there are equally great differences between agricultural production in the temperate and the tropical regions. The same basic facts and principles guide plant and animal growth in all climates. But the application of these principles to agricultural production under tropical conditions present many new problems to the U.S. agriculturist. Before the start of the technical assistance programs by the United States, few U.S. agriculturists had been concerned with tropical agriculture. The research programs of the colonial powers in tropical agriculture had concentrated on the export crops such as sugar, coffee, tea, cocoa, rubber, spices, etc. Native populations had not outgrown the native supplies of the traditional foods in most of the less developed countries, and, hence, there was no pressure for adaptive research directed to the increased production of food. With the great increases in population of the last two decades, most of the developing nations are now faced with serious food shortages. The need for and value of adaptive research is highlighted by significant increases in crop yields now being secured in many areas by the introduction of newly developed, high yielding strains of the food grains, together with the adoption of appropriate cultural methods and the use of fertilizer, insecticides, etc. Without adaptive research these increases in production would not have occurred. Although certain striking benefits of adaptive research have occurred, the task of acquiring the necessary information about tropical agriculture is only starting. In addition, the infrastructure serving agriculture must be strengthened.

There are two mutually dependent needs which appear because of the knowledge gap in these areas. First is the need for more information on appropriate policies and procedures for encouraging rural development in the less developed nations and for more knowledge about crop and animal production and marketing under tropical conditions. The second need is to strengthen the capabilities of the U.S. universities in these areas, so that they may be more effective in their technical assistance to the less developed nations.

The university contract programs of technical assistance should be designed to close the knowledge gap in these areas and to increase the capabilities of the U.S. university while serving the less developed country. In the past, practically all university contracts have been developed solely on the premise of giving assistance to the less developed country. A program which does not lead to increased capabilities in the U.S. university will inevitably become sterile and self-defeating. There is evidence that this is beginning to happen in some of the projects.

This need not happen. Projects can and should be designed to give technical assistance overseas in a fashion which will strengthen and not weaken the U.S. university and at the same time increase the store of knowledge about rural development and tropical agriculture. Although A.I.D. and the universities can each make certain changes which will improve the present situation, cooperative action will be required if rapid progress is to be made (see Chapter I for recommendations).

Underestimation of Difficulties and Time Needed

Institution building under any condition is a slow process. Our success in assisting in the rehabilitation of the institutions of war-torn Europe under the Marshall Plan led many to believe that institutions could be built rapidly in developing countries. Our early experiences under the Point Four Program made it clear that aiding in the building or rebuilding of institutions in the developing countries was far different from assisting in rehabilitation of a prostrate Europe. If more emphasis had been placed on our own history of development and less on the recovery of Europe, our foreign aid program might have avoided some of the problems encountered (Chapters IV, VI, and VII).

The history of our land grant colleges has been characterized as a half century of infancy, 1864 to 1914; three decades of adolescence, 1914 to 1944; and a quarter century of maturity. Any capsule description of this type is subject to criticism and misinterpretation; however, there would be fairly general agreement that the land grant colleges were created in the hope that such institutions would serve a useful purpose in the development of our nation, and that their major contributions have been made in the later half of their lives.

The reputation of the land grant college led to widespread requests from the developing nations to help build institutions which would serve them as the land grant colleges had served our agriculture and rural people. The nature of the objective met wide approval; the difficulties of achievement were only dimly realized. In some of the developing countries, the call was to aid in building new institutions. In most cases, the request was for assistance in improving an old institution. In practically every case, the institutional pattern was based on those of one of the European countries.

Any institution to be useful and remain viable must occupy one segment of a total institutional pattern and cooperate with other segments of the total pattern. The difficulties of helping a faculty of agriculture generate a problem-solving, service orientation in situations where all responsibility and all funds for agricultural research and extension are assigned to other government agencies have not been fully appreciated. Rarely have the host country ministry of agriculture and the host institution participated fully in the pre-project and project planning. Our findings indicate that the development of cooperative programs between the appropriate host country entities are much more easily accomplished if the precontract and contract planning has involved all of the concerned entities.

Just as there has been underestimation of the difficulties of the task, so has there been underestimation of the time required to build useful, viable institutions. Pressure from citizens and the Congress for an early end to technical assistance activities has resulted in pressure on A.I.D. to "work themselves out of a job" and this in turn has exerted pressure on the universities. The research findings from a study of several university contracts which had been terminated indicate that many were terminated before the task of building an institution with a problem-solving, service orientation was well started. In some instances, the damage to U.S. interests of early termination may have overbalanced the values gained by the institution from the assistance of a land grant college contract. The stirring of hopes and aspirations which are not fulfilled can be a devastating thing, and there is much evidence that it would be wise to establish new programs in several of the institutions where projects were earlier terminated. If full returns are to be received on the economic assistance which has been given to the less developed nations, technical assistance in building institutions should be continued for some time after economic assistance has ceased. The cost is low and the returns are great.

The line between what is essential and what is merely useful is fine and difficult to locate. Clearly technical assistance to any one institution should not continue indefinitely. To do so would waste the resources of the donor and stultify the internal growth of the recipient. Equally clearly, projects should not be started unless there is expectation of continuing long enough to start the institution on a new path with the necessary vitality to enable continued growth. The findings of this research indicate a need for the development of new patterns of technical assistance as the host institution matures, and a variety of new approaches might be tried. More U.S. professionals might be used for specific and carefully developed short-term assignments. Relatively small amounts for travel and supplementary salaries could be used to implement true faculty exchanges. Professional workers need the stimulation of association with their peers. Unless host country professionals are provided with the stimulation which comes from discussion of their research work with other competent men in their field, many lose contact with new developments and cease to be productive. Small sums expended in sponsoring regional professional meetings might be used advantageously. Similarly, small sums to subsidize publication of significant research findings might pay big dividends.

Fortunately, over the years more and more A.I.D. and university personnel are recognizing the difficulties and the long-range nature of the process of building institutions to serve agriculture. Sixteen of the projects have been carried continuously for over ten years. Several of the long-term projects are approaching a degree of maturity which gives promise of continued growth and service to agriculture. None of the projects which were terminated after a life of five years or less can be so classified. Coordination of the efforts of several projects in the large nations and in regions is improving, supported by A.I.D. and the universities. Still better coordination within countries and regions is needed.

In summation, the failure to recognize the difficulties of and the time required for institution building has contributed both to considerable uniformity in the nature of the university contract and to premature termination of some contracts. The research findings indicate the need for recognition that institution building is a slow process and that a flexible approach is needed in planning the inputs at various stages in the development of the host institution (see Chapter I for recommendations).

Lack of Confidence in Permanency

The great majority of those intimately associated with technical assistance as well as serious students of the world situation are convinced that the United States should continue to offer technical assistance to its less fortunate neighbors far into the indefinite future. It is apparent that many of our citizens, both in and out of government, have not accepted this viewpoint. The continuing struggle in Congress over appropriations for foreign aid, the sudden shifts in emphasis within the program, the many reorganizations of the administering government agency, and the short tenure in office of the foreign aid administrators have combined to foster a widespread loss of confidence in the permanency of the U.S. technical assistance programs.

The research findings indicate that this lack of confidence in continuity has many adverse effects on the operation of the program. A.I.D. and the universities continue to plan and operate programs on a short-term basis although both are aware that institution building cannot be finished in a few years. Universities, particularly at the department level, are reluctant to build supportive international programs. Most university staff members see no opportunity to develop careers in international agriculture and regard a two-year assignment abroad as an interlude, and frequently a costly one, in their career plans. This general lack of confidence in the permanency of a technical assistance program and of university participation presents a serious constraint on the successful operation of such programs (Chapters V, VI, and VII).

This study made no assessment of the public approval or disapproval of foreign aid or of the technical assistance portion of foreign aid. It did give some attention to the question of public reaction to university participation in technical assistance. The small amount of evidence collected does not indicate either strong approval or strong disapproval. No state university has asked its legislature to support overseas technical assistance activities and only a few have asked their legislature for funds to support any international activities other than on-campus instruction. Many college of agriculture and state university administrators feel it advisable to continually remind the public that no state tax receipts are used for overseas technical assistance. Congressional action on the foreign aid program indicates a much smaller level of public support for the total program, but with smaller proportionate reduction in technical assistance than in other parts of the program.

The significance of this lack of confidence in permanency on the successful operation of the college contract programs suggests that both A.I.D. and the universities, individually and collectively, should reexamine their policies and procedures in an effort both to gain more public support for the program and hence increase confidence in its permanence and to give the maximum feasible assurance of continuity. No specific panaceas are offered but certain types of action which might help are suggested. Universities which have a considerable history of contract work might reexamine their policies and procedures to find ways in which internal confidence in the continuity of the program might be enhanced. A.I.D. might critically examine its policies and procedures with the objective of making changes which would enhance public confidence in the continuity of such a program. University administrative and professional personnel might accept the responsibility of discussing with the citizens of their states the values of and the need for permanent involvement of U.S. universities in technical assistance with a view to developing a stable financial base for such activities. A.I.D. might separate the technical assistance and the college contract portions of the foreign aid program from other portions of its requests and emphasize more strongly the long-range character of such programs. Under such circumstances, the action of Congress would tend either to confirm or dispel the current lack of confidence. Either might be preferable to the present situation (see Chapter I for recommendations).

Low Ranking of University Contract Projects

The university contract technical assistance program represents a very small part of the funding for the total programs of both A.I.D. and the typical U.S. university. Although recent A.I.D. administrators have demonstrated very real interest in the college contract programs, the basic structure of A.I.D. inevitably ranks the college contract program low. The same general comment could be made with respect to many universities. University presidents and other top administrators frequently have demonstrated real interest in their A.I.D. contract programs. Nevertheless, the small financial stake in these programs tends to relegate them to lower status in the university than might be indicated by the president's interest in the project (Chapters VI and VII).

The high degree of autonomy granted to the regional structure in A.I.D. inevitably leads to differing policies and procedures among regions with respect to the university contract programs. Currently no one in central administration other than the administrator can speak for all aspects of the university contract program. A staff officer within the Office of Program and Policy Coordination is concerned with university relations. Another staff officer within the War on Hunger Office is concerned with research and institutional development. These two officers help in every way they can, but neither carries any responsibility for the total university contract program. In the regional bureaus, a number of different offices are involved with any contract. The program planning group is responsible for seeing that the contract fits with the overall plans and programs which are being developed for the particular country. The desk officer from the country involved is concerned with the foreign policy aspects. The technical advisory staff is concerned with technical aspects of the contract, and the contracting officer has the responsibility of developing a contract which faithfully observes all of the laws, rules, and regulations governing the activities of the agency. Only occasionally is there sufficient interest and time to seek a new and more effective mechanism of accomplishing the objectives intended for the university contract.

Within the universities, the administrative structure concerned with contracts varies widely. At the start, none of the universities had specific mechanisms for handling such contracts. The administration of the contract was assigned to other personnel in addition to the duties which they already had. Many of the early difficulties in the administration of college contracts were attributable to this condition. As time has gone on, the universities have developed mechanisms for handling such projects. However, in many universities the departmental voice is heard only very weakly by those who make the decisions.

The findings of this research make it clear that the A.I.D. and university operational procedures are responsible for many of the petty irritations and frustrations experienced both by university personnel and by A.I.D. personnel. Unfortunately, the findings do not provide easy panaceas. It is apparent, however, that it would be wise for both A.I.D. and the universities to closely examine their administrative structures to see whether changes can be made to improve working relationships between the two entities. (See Chapter I for recommendations.)

Handicaps Imposed by Rapid Turnover of Personnel

Basic to the success of any institution building process is continuity of objectives and policies, with a strategy based on experience of the project. Institutions are built slowly step by step. Continuity may be achieved by a highly detailed written record or by continuity of responsible personnel. In the A.I.D. university contract program, there has been little of either. The importance of improving the written memories of university contracts has been discussed earlier in this report. Although there are examples of long continuous service on a particular project, the general pattern is one of two to four years' service at a post, both by A.I.D. and the university. In addition, top administrative personnel of many host universities are appointed for fixed terms of two to four years, and too often there is relatively short tenure in the top university administrative posts (Chapters VI and VII).

In a mature institution, concerned only with collegiate teaching and basic research, there is less need for continuity in leadership than there is in a new institution or in an older one which is attempting to make significant changes in its attitudes and orientation. An institution whose goals are to understand the problems of rural people, to solve such problems through applied research and to serve the needs of the rural people must maintain a continuity of objectives and policies which are firmly grounded in earlier experience. It is with institutions of this type that our university contract projects are associated. The constant shifting of the principal figures in these institution-building attempts have served as a serious constraint on successful operation.

A.I.D. and the U.S. universities can only advise regarding the tenure of the top administrative leaders of the host university, and with the typically rapid turnover in mission and U.S. university groups, they are frequently in a poor position to offer advice. On the other hand, A.I.D. and the universities could make changes to promote personnel continuity. It would be undesirable for all members of an A.I.D. mission and a U.S. university field team to remain indefinitely on any project. New skills are needed to meet new conditions as a country and an institution develop. However, at least one member of the university team and one member of the A.I.D. mission might well serve much longer than is now common.

The factors responsible for the relatively short-term service in a particular A.I.D. or university post concern both the personal life and the professional career of the individual. In only a few cases do either A.I.D. or university personnel find long continued residence in one developing country satisfactory either to the individual or his family or to satisfactory career development patterns. If continuity is to be achieved and the personal family considerations and the career opportunities of the individual are to be protected, new approaches to the planning and operation must be devised. No one pattern can fit all cases, but there are many ways to secure a considerable improvement in the continuity of those primarily responsible for the project and at the same time attract first quality individuals. Two suggestions will illustrate possible approaches.

For the university, a project administrator might be appointed, with the understanding that we would retain his home base at the U.S. university and continue some of his regular teaching and research. The rest of his time would be devoted to project affairs both in the U.S. and in the host country. Such a position might provide greater continuity than is now common.

A.I.D. might develop a cadre of individuals with both interest in and knowledge of the process of aiding the developing nations build institutions for agricultural education and research. Such individuals could serve as regional consultants to A.I.D. missions on all aspects of such projects from the initial feasibility considerations throughout the life of the project. Probably no one would wish to stay permanently in such a position, but if properly established, such an assignment would prove both interesting and professionally rewarding for longer periods than do the typical mission assignments. Undoubtedly many other ways can be devised to attract high quality people for longer periods of time than does the typical assignment (see Chapter I for recommendations).

Complexities of Operation

There are at least six, and often more, entities directly involved in the planning and operation of the university contract project: A.I.D./Washington, A.I.D./Mission, host government ministry, host university, U.S. university home campus, and U.S. university field team. In the larger host countries, there will be both national and state or provincial ministries. Often both a ministry of education and a ministry of agriculture are involved (Chapters VI and VII).

The basic agreements on which the project is based are made by the two national governments, after negotiations between appropriate representatives of the host government and of the U.S. Embassy and A.I.D./Mission. These basic documents are supplemented by more specific documents relating to each project. Failure to involve all of the interested host country entities at this stage of planning has caused many difficulties in later operation. Most of the rural development projects with universities deal with a host institution which is responsible to a ministry of education. The responsibility and funds for agricultural research and extension usually belong to the ministry of agriculture.

Our studies indicate that those projects based on joint planning by appropriate U.S. and host nationals start with a better chance of success than do those planned by a limited group. For most effective planning, the U.S. representatives need to be informed about the host country, particularly its institutions serving agriculture and education. The host country representatives need to study the land grant colleges of agriculture and the role which they play in agricultural education and research. In the early years of A.I.D.-university relations, frequently the U.S. university had very little information about the educational and agricultural institutions of the host country or of the international agreements. More recently, the prospective U.S. university contractor is given an opportunity to gain such knowledge through a precontract survey.

The early U.S. university discussions with A.I.D./Washington are almost exclusively with people interested in substantive aspects of the project. When the contract is to be drawn, the contracting officers of A.I.D./Washington and the business office of the university enter the picture to see that the contract is fiscally and legally sound. The contracting officer understandably approaches the drawing of a university contract from his background as a "buyer." The university representatives who have heard the administrator of A.I.D. tell university audiences that A.I.D. wishes to establish a partnership arrangement with the universities often finds the "buyer-seller" approach of the contract document irritating and confusing.

As soon as the contract is signed, all interested parties expect the team to be in the field within a few weeks. Selection and recruitment of staff is difficult and, if well done, time-consuming. The U.S. university is solely responsible for recruitment, but each of the entities demands a veto power. Usually the selections made by the U.S. university are approved. However, there have been many nominations of prospective team members which have not passed the scrutiny of some of the other U.S. and host country entities. Even more distressing are the cases where weeks and months have elapsed between submission of the record of an individual and his approval by each of the entities. By this time, the candidate may be unavailable. Finally the team members arrive at the host institution. As the team member moves into his technical activities, he faces the fact that each of the six or more entities with which he must work has its own framework of laws, rules, regulations, and customs.

Over the years there have been many suggestions that a grant type of university technical assistance program might operate more effectively and obviate many of the problems associated with the contract operations. Usually proponents of a grant operation have assumed that such a mode of operation would give a greater degree of continuity and provide for more flexibility of university field team operation. A grant system could do this, but it could also be as restrictive as the contract system, if the "buyer-seller" philosophy prevailed. The research findings document the irritations, frustrations and delays which have arisen from the many rules and regulations surrounding operations under the contracts. Whether a grant system would team A.I.D. and the universities in a true and more productive partnership is not known and will not be known until it has been tried. The evidence from this research and from the experience of other governmental agencies with a grant mode of cooperating with universities points to the desirability of a trial of the grant system in university technical assistance operations. Operation of the university projects in a foreign nation could not be totally independent of the U.S. Embassy but it could be placed on a long-term basis with much more flexibility than such operations now enjoy. The provisions of the present A.I.D. grants to universities for strengthening their capacities to do technical assistance could form the basis for the development of a grant type of operation for technical assistance abroad. A limited and carefully controlled trial of a grant system should not cause serious difficulties and could provide a basis for more effective operation of university technical assistance projects (see Chapter I for recommendations).

Foreign Language Competencies

Few U.S. agriculturists are fluent in any language other than English. Failure to speak the language of the host country is a decided handicap to effective work in technical assistance, even in countries where the collegiate instruction is principally in English (Chapter VII). Fluency in the local language is essential in countries where college instruction is not in English. In the former English colonies, most college instruction is in English and frequently English is the official or alternate official language of government. This is not true in the former colonies of Spain, Portugal, France, Holland, and Belgium. In many of the Far East countries, Japanese or Chinese are the languages of government and colleges.

The need is now widely recognized for language training for those working in areas where a European language, other than English, is the language of government and collegiate instruction. Only very rarely have team members acquired some fluency in the language of the farmers and tradesmen if they use a non-European language. If a U.S. team member is to effectively help host country faculty members form solid linkages with farm people, he should be able to talk directly with the farmer. One of the most difficult tasks of the U.S. team is to encourage the host country staff to become interested in the problems of the rural people and to use their training and skill in the solution of such problems. A significant reason is the inability of the U.S. team member to work directly and closely with farmers who do not speak English. Agriculturists need to know both the official language and the language of the farmer and tradesman (see Chapter I for recommendations).

The Low Prestige of Agriculture

Since the dawn of civilization, individuals who could escape from the tasks of gathering or growing food, either by force or by intellect, have been honored and respected. Those unable or unwilling to leave food production have received few honors and little material wealth. As agriculture has become more technical and mechanized in this country, the farmer has gained in public respect, but even now farming in the United States is not an occupation of high prestige. The prestige of farmers and of professionals in the various aspects of agriculture is much lower in most of the less developed countries than it is in this country.

In many of the less developed countries, many of the applicants for entry into an agricultural college are those who have been denied admission to a collegiate program of higher prestige. In like manner, many of the graduates leave work in agriculture for occupations with higher prestige. Most of the agricultural colleges in the developing countries receive inadequate support and there is widespread belief that the low prestige of agriculture is a contributing factor.

The status of farmers and agricultural workers will rise as the financial returns from agriculture rise. U.S. team members can contribute to the rise in prestige of agriculture as they contribute to agriculture. Although U.S. team members can do little directly to change an age-old belief, more vigorous search for effective ways to overcome the harmful effects of the low prestige factor might be productive.

Lack of Experience in Developing Nations

A quarter of a century ago, when the first U.S. programs of technical assistance were started, very few of those going overseas on such missions had any previous work experience in developing nations. Few had even traveled in such countries or studied their history. They started on their tasks with varying degrees of the fear of the unknown and the confidence of the inexperienced. Since that time, many land grant college staff members have served overseas on rural development projects for two or more years. Others have traveled abroad either on other business or on vacation (Chapter VII).

Even now, however, a relatively small percentage of the staff of the colleges of agriculture have had any significant technical assistance experience in a developing nation. Perhaps two percent of the combined active instructional, research, and extension staffs of the land grant colleges of agriculture have had such experience. A few individuals have accepted a second tour of duty after an interval of one or more years on the home campus, and an even smaller number have served several tours abroad with projects of more than one U.S. university. However, in most cases the members of the U.S. team start their overseas tour of duty with no previous similar experience. Evidence from various sources that such experience is valuable tends to confirm an assumption, based on theory, that such experience should be helpful.

Regardless of the desirability of previous overseas experience for U.S. university team members, it seems improbable that any pronounced shift from the present situation would be either possible or desirable. From the university standpoint, there are many advantages in giving overseas experience to a considerable number of their staff members. There are ways to compensate for the lack of overseas experience, at least to some extent. The findings of this research clearly indicate the need for:

1. Longer periods of preparation before departure overseas.
2. Better formal orientation programs.
3. More effective use of the knowledge and skills of returned staff members in preparing new team members for overseas assignment.

(See Chapter I for recommendation.)

Overall Costs and Accomplishments

IX

One objective of this research project was to "assess what has been accomplished by the overall program for developing agricultural education and research institutions abroad and the cost of such developments under varying circumstances." This chapter presents a summary of the overall assessments of costs and accomplishments of projects in which U.S. universities participated. Individual projects are not identified. The details of university involvement and the resulting impacts have been described in Chapters IV and V.

Most of the university contracts are designed to help a foreign nation build education and research institutions to serve the agriculture of that nation, but a few projects included work of other types. Our studies in the host country concentrated largely on the university-to-university projects. In the U.S. each participating U.S. university was studied, regardless of the character of its A.I.D.-supported overseas program.

In presenting these results it is acknowledged that the costs borne by host countries have been substantial although no attempt is made to document them here. It is also admitted that definitive measurements of both costs and accomplishments are not feasible and the results presented here represent judgments synthesized from diverse types of evidence.

Costs and Benefits At Home

Costs and benefits may be measured in many different terms and discussed from many different viewpoints. Our study gave primary attention to U.S. costs in terms of money, manpower, and disruption of domestic programs. Values received were viewed in terms of improved institutional programs, increased capability of staff and a broadened role accorded to the universities by the public. See Chapter V for a more detailed discussion of many of the following items.

Money

The total expenditure of U.S. funds for university contract programs of technical assistance in agriculture has been substantial, but when compared to expenditures for similar purposes in the U.S., or when related to the total assistance that has been furnished to foreign countries, it is very small. When the total expenditures are balanced against total accomplishments, they strongly favor continued investment but they also call for considerable improvement in efficiency. During the 1967 fiscal year, A.I.D. spent less than forty million dollars for university contracts for technical assistance in all fields.

Approximately half of this was in agriculture and rural development. Since 1951, the U.S. has spent less than 150 million dollars on A.I.D. university contracts for technical assistance in agriculture. This is a small portion of the 42½ billion dollars of U.S. economic assistance to foreign nations during the period 1948-1966.*

In fiscal year 1965, federal, state, and local governments in the U.S. spent over thirty billion dollars on education. In the same year over five billion dollars were spent on space research and technology by the federal government. Annual federal administrative budgets for the various activities of the U.S. Department of Agriculture over the last few years have ranged from about three billion to more than five and one-half billion dollars.†

There are several state universities with annual operating budgets of some 200 million dollars. Individual state appropriations for higher education ranged from about seven million to almost 500 million dollars in the 1966-1967 fiscal year.‡

Although comparisons of expenditures of this nature are revealing, justification for expenditure for U.S. funds for technical assistance in building institutions to serve the agriculture of the less developed nations must come from an examination of the other costs and the benefits derived from the program.

Manpower

Less than one percent of the professionals of U.S. colleges of agriculture are engaged in university contract programs of technical assistance at any one time, but even at this level of participation universities have had difficulty in staffing their contracts. At the time of our survey, there were some 300 professional staff serving overseas on university contracts in rural development. Approximately three-quarters of these were university staff members immediately prior to their overseas assignment. The others came from various areas of government, industry, or high school employment. While the load is not evenly distributed over the different colleges or over the departments within the college, the university contract program in technical assistance still makes only minor inroads on the total manpower of our colleges of agriculture. In spite of the fact that only a small fraction of the manpower pool is needed for overseas service, most of the colleges find it difficult to staff their contracts with well-qualified individuals without disrupting progress in domestic commitments. Some faculty members are unavailable for personal or family reasons. Many faculty members believe that under present conditions a two-year overseas tour of duty would seriously disrupt their professional career development.

---

* From A.I.D.

† From U.S. Department of Commerce Pocket Data Book. 1967.

‡ Chambers, M. M. Appropriations of State Tax Funds for Operating Expenses of Higher Education, 1966-1967. Office Institutional Research, National Association of State Universities and Land Grant Colleges.

University Programs

Universities have greatly expanded their teaching programs in all aspects of international affairs in the last quarter of a century. The experience of college of agriculture staff gained by overseas service is a rich asset for the sound development of many such programs. Returned staff members and department chairmen reported that foreign experience was more useful in domestic teaching programs than in either domestic research or extension programs. However, the gains of U.S. universities in the enriched experience and understanding of the staff who have served overseas may not have compensated for the loss of their services and the disruption to their programs while they were away.

In contrast to the positive effects of foreign experience on the performance of returned staff members is the detrimental effect on departmental programs of the absence of the staff member from his regular duties while on overseas assignment. Department heads and colleagues agree that the substitute arrangements for carrying the domestic teaching, research, or extension assignments were generally less satisfactory than those of the regular staff member. The time required for staff members to adjust upon their return from overseas ranges from one month to as much as two years, and this further adds to the departmental costs of participating in the program. These harmful effects of the university contract projects on the departmental responsibilities in teaching, research and extension are responsible for the negative reaction of many university staff members.

In general, the net costs to university programs occur primarily during the period that the staff member is overseas and are felt particularly at the departmental level. The benefits come after the staff member returns from overseas and are in many cases more at the university level than at the department level.

Prestige of the U.S. University

There has been a small but perceptible improvement in the concurrence by the general public that technical assistance is an appropriate activity for their state-supported universities. Participation in university contract projects has many intangible effects, such as the increased staff awareness of international affairs and the flow of participants from the host country of the project to the U.S. university campus in considerable numbers. Many of these participants have traveled and visited widely over the state with the result that the citizens have learned much about the host country.

A few state universities have requested and received state funds for broadened international programs, which included strengthening the ability of the university to engage in technical assistance. However, there is general agreement that the cost of overseas technical assistance efforts should be supported by federal funds. These studies provide no definitive evidence as to whether participation in technical assistance projects either has enhanced or harmed the reputation of the university in its home state, or has improved or degraded the image of foreign aid in the minds of its citizens. Certainly, changes have occurred in many states in the willingness of the elected representatives to support their state university. The overall subjective evidence suggests that where the general public has been adequately informed of their university's participation and accomplishment in technical assistance, it has approved and supported such activity.

Benefits to the Host Country

The major costs of building institutions to serve the agriculture in the less developed countries are borne by these countries and this study made no attempt to determine the extent of such costs to the host country. In practically all cases of U.S. university assistance to a foreign institution the U.S. contribution is only a small fraction of the total cost.

Benefits to the host country are measured largely in terms of institutional change since primary emphasis was placed on the university-to-university institution building projects. The university contract projects generally assumed that problem-solving, service-oriented institutions for agricultural education and research would in due time contribute substantially to the rural development of the country. Consequently, our study assessed the extent to which this orientation was achieved in addition to the changes in physical facilities, staff, student body, programs in teaching, research and extension, attitudes, and the integration with society. Undoubtedly, some changes would have occurred over a period of years in the host institutions had they not received technical assistance. No attempts were made to isolate specifically the results which are due only to the external assistance. However, the cumulative evidence suggests that most of the changes which have occurred were certainly accelerated by technical assistance.

Although sixty-eight projects were included in this study (see Table 2) relatively few of them had continued long enough to enable a fair appraisal of their ultimate success. Only sixteen of the projects had been under way for as much as ten years. One of these was in Africa; two were in Latin America; and eleven active and two expired were in the Near East and South Asia. Of the forty-three active projects, twenty-eight were less than five years of age. These were divided equally between Africa and Latin America. Of the twenty-five expired projects, thirteen existed less than five years and only two for over ten years. In the Far East seven projects expired in less than five years, and five more between five and ten years. There were no active projects in the Far East at the time of this survey. In Latin America, four projects expired in less than five years and four more in less than ten years.

The short duration of so many of the expired projects is in sharp contrast with the practice of the private foundations who establish each of their projects on a long-term basis. The results of this study point strongly to the long-range nature of institution building.

Some improvements were made under each of the expired projects. But in many cases early termination of a project was not in the best interests of the United States or of the host institution. In certain cases the establishment of a new contract would pay big dividends to both. The success of many of the long-term projects demonstrates that this type of technical assistance is both feasible and worthwhile. See Chapter IV for a more detailed description of many of the following items.

Physical Facilities

Additions to the physical plant, both buildings and land, were stimulated by the technical assistance project, but in large part were funded by the host country. Almost invariably, there was marked improvement in physical facilities during the life of the contract. New buildings were built; classroom, laboratory, library, and office space was increased; library holdings were increased; laboratory equipment was modernized; and experimental farms were improved and expanded. Much of the improvement in laboratory equipment and in library holdings came as commodities furnished by contract funds, thus the technical assistance activities stimulated the host institution to commit its own resources to improved physical facilities, while the U.S. made commodity inputs in those items requiring scarce foreign exchange.

Staff

The professional and technical capability of the host institution's staff and the orientation and understanding of the agricultural leaders was vastly improved in practically every project. A total of 2,360 participants from fifty-eight contracts were sent to the U.S. for study and training and two-thirds of these returned with a master's or a doctor's degree. In addition there were many other A.I.D.-supported participants from the less developed countries. Included among those who did not study for an advanced degree were many administrators and policy makers who studied institutional role and organization and gained other insights that enabled them to develop their own institutions to better serve their agriculture. At the host institutions the staff and administrators were assisted by U.S. professionals in developing teaching, research, and extension programs that could capitalize on the increased competence of the staff. The numbers of staff members at the host institution increased in proportion to the increased enrollments and the increased responsibilities in research and extension.

Some of the institutions have suffered in staff quality because other agencies of the government were so deficient in trained personnel that they offered better salaries and perquisites than could be provided at the host institutions. While this practice tended to improve the total trained manpower of the host country, it prolonged the task of building a particular institution and it affected the apparent cost and efficiency of technical assistance. In most cases, however, this "leakage" increased the capacity of other agencies serving agriculture to better utilize the products of the assisted institution. In only a few cases have university contract participants left their native country for employment elsewhere.

Student Body

In general, the assisted institutions have shown large increases in student enrollments and in the numbers of graduates at the bachelor's level during the period of the contract. There was a general increase in the number of applicants for admission, giving the institutions a better opportunity to admit a higher quality of students. This also suggests that agriculture was gaining prestige as a professional occupation among the secondary school graduates in many developing nations. A number of new graduate schools were developed and several existing ones were improved. This laid the groundwork for becoming self-sufficient in the production of their own teachers and researchers within a reasonable time. Practically all of the graduates enter government service in many of the less developed countries. In only a few of these countries has there yet been sufficient development of the private sector to employ many agricultural college graduates.

Programs, Attitudes, and Linkages

Perhaps the most difficult change to bring about in an institution is to redirect its basic attitudes and philosophy regarding its purpose, its responsibilities, and its programs. In eight assisted institutions these changes have occurred to the point of being regarded as institutional traditions and in many others substantial progress in this direction is evident. However, in some there is little evidence of change in staff attitude and philosophy. One of the fundamental purposes of university contract programs in agriculture was that of developing a problem-solving, service-oriented institution which could identify the significant problems of agriculture and the farm people, seek solutions to these problems, and aid rural people to make use of their research findings. This problem-solving, service-oriented approach was designed to find expression in the teaching, research, and extension programs of the university.

Most of the foreign nations being assisted by A.I.D. created their existing institutions under European sponsorship and as a result their institutions differ internally from the U.S. land grant university and also as to how the universities are related to other institutions and the public. The challenge of working with the staff of the host institution in the improvement of technical competence, the reorientation of attitudes and programs, and the establishment of productive linkages with other social entities has been both stimulating and frustrating to the U.S. university team members. The overall progress in this area has been encouraging, even though slow.

Teaching

Most of the host institutions have made changes in teaching methods, examination procedures and faculty-student relations which indicate changes in institutional attitudes on educational matters. These changes are usually accompanied by more practical laboratory work and better library use. Many of the host institutions have changed to the teaching devices of daily quizzes, monthly examinations, etc., instead of the former practice of placing sole reliance on a single final examination at the end of the year which was often developed and administered by outsiders. Curricula and course outlines have also been updated in most institutions, but this does not always guarantee changes in course content or quality of teaching. Although there is evidence of considerable change in the teaching programs, there is also considerable evidence that there has been less change in the attitudes of faculty members than the visible changes might indicate.

Few of the host institutions have established effective linkages with the secondary schools from which students come. The situation is somewhat better with respect to the university relationships with the government agencies which employ most of the graduates, although considerable improvement would be possible in most institutions.

Research

Technical assistance has been valuable in increasing the research capability of the host institutions and in focusing their research efforts on practical problems of importance to their agriculture. In at least seven institutions the land grant attitude toward research work on urgent practical problems prevailed rather generally and in several others there was substantial progress in certain fields. Again, as in teaching, it is difficult and at times frustrating to attempt to change attitudes regarding the type of research which is appropriate for universities. University faculty members in many of these institutions have been indifferent to the urgent problems of the nation. Nevertheless, many examples were found where the results of research projects were being put to use by the farmers and where the ministry of agriculture is showing interest in supporting such activities at the university.

Extension and Public Service

In practically all of the less developed nations responsibility and funding for agricultural extension and public service resides in a ministry of agriculture. The universities in such nations have usually carried no responsibilities in extension or public service.

With most A.I.D.-university projects, great difficulty has been experienced in reaching a consensus with the government ministry as to the appropriate role of the host institution in this field. As a result, progress in extension has responded the least to U.S. university efforts. Several host institutions have been delegated small geographical areas in which to develop techniques and to train students. Others supply subject matter specialists, offer in-service training short courses, prepare extension materials or engage in other service activities to extension. However, only three institutions were regarded as having developed a very useful extension program. The evidence is clear that progress has been made in changing top level attitudes toward the role of the university in extension and public service. However, the progress in this field has been slower than in teaching and research.

Effectiveness of U.S. Universities

An overall assessment of the effectiveness of U.S. universities in technical assistance projects indicates that where these activities are in operation long enough a very worthwhile contribution can be made to the building of indigenous agricultural institutions, but not all have achieved such success, and few have progressed as rapidly as they might have. Evidence from this study rated about two-fifths of those that have been under way a reasonable period of time as being "good" to "outstanding." This has occurred during the period when U.S. universities were learning the art and developing the capability for technical assistance. Much external evidence also corroborates this assessment. For example, sufficient progress has been made in several countries to justify the World Bank in making substantial loans for providing physical plants and strengthening the assisted host institution's programs. These institutions have provided much of the trained personnel and technical leadership in their regions that undergird and facilitate the more spectacular research programs of the Rockefeller and Ford Foundations. International corporations, which provide massive inputs of fertilizer, pesticides, etc., are now seeking the top graduates from several of the host institutions for their market expansion programs.

Any evaluation of the effectiveness of the U.S. university contract program must consider that the variations in host government commitment and host institution leadership are equally as great as are the variations in U.S. university performance. Many poor records are due to local conditions and many of the successes owe much to strong host country commitment and leadership.

We cannot expect the forty-five institutions now being assisted by a U.S. university to meet the need of the developing nations even after they have reached maturity. This is less than the number of land grant colleges of agriculture in the United States. With over ten times the population and more than five times the land area of the United States, the less developed nations will need many more institutions developed to a place where they can effectively serve agriculture. There is a great need for further expansion of the program, and this represents an area where the U.S. and its universities can make a significant contribution to the developing nations.

Overall the university contract program of technical assistance has made important contributions to the building of institutions to serve the agriculture of the less developed nations. The successes indicate that the task is feasible and worthwhile. Use of the knowledge gained by fifteen years' experience can improve the performance of the less successful projects.

Summary

Although there are wide variations in the effectiveness of various projects, it is clear that the university contract program in agriculture has made important contributions abroad at comparatively small cost to the United States in money, manpower, and interruption of domestic programs. The overall past record demonstrates that the use of U.S. university teams to assist a less developed nation build an institution to serve agriculture can be very productive abroad and well managed at home. Unfortunately not all have been equally productive abroad and well managed at home. The challenge now is to make better use of the experience which we have gained to improve the performance both abroad and at home. Most of the needed improvements will require cooperative action by A.I.D. and the universities. The program should be improved, continued, and expanded.

Research Reports

Research Reports Developed by the C.I.C.-A.I.D. Rural Development Research Project

Correspondence regarding these reports
should be directed to the authors.

1. *U.S. University Field Team and A.I.D.-Field Relationships*, J. H. Atkinson, Department of Agricultural Economics, Purdue University, Lafayette, Indiana.

   Copies have been distributed in mimeographed form to a selected list of A.I.D. and university personnel. It is hoped to use much of this material in a paper in a professional journal.
2. *Institution Building and Rural Development: A Study of United States Technical Assistance Projects*, David R. Derge and Donald L. Souder, with the participation of E. Hollis Merritt, Richard Bonnabeau, John Stryker, William Murphy, Neil O. Leighton, Allen Hershfield, and J. Gus Liebenow, Department of Government, Indiana University, Bloomington, Indiana.

   It is expected that this report, with some revisions, will be published by the University of Indiana Press.
3. *Extent of Administrative Unity Within the Technical Assistance Complex*, David F. Ellsworth, Department of Agricultural Economics, Purdue University, Lafayette, Indiana.

   Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. It is hoped to use much of the material in a paper in a professional journal.
4. *Bibliography on Planned Social Change*, 3 volumes, Robert T. Holt, Richard Blue, and John E. Turner, with the assistance of Richard Erikson, David Garnham, Diane Johnson, Susan Lampland, Lawrence Rose, and John Schwestka, Department of Political Science, University of Minnesota, Minneapolis, Minnesota.

   Mimeographed copies of this report were distributed to university libraries and appropriate A.I.D. offices. There is no further publication planned.
5. *Toward a General Theory of Technical Assistance*, Ronald W. Jones, NESA/TECH, Agency for International Development, Washington, D.C., and Melvin G. Blase, Department of Agricultural Economics, University of Missouri, Columbia, Missouri.

   No distribution has been made. It is hoped to publish this in book form at a later date.

6. *Administrative Procedures and Strategies of the Technical Assistance Complex in Institution Building Contracts*, J. K. McDermott, Department of Agricultural Economics, Purdue University, Lafayette, Indiana.

   Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. It is hoped to use much of the material in a paper in a professional journal.

7. *Team Leader*, Wm. L. Miller, Department of Agricultural Economics, Purdue University, Lafayette, Indiana.

   Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. It is hoped that much of the material will be used in a paper in a professional journal.

8. *The History of the Agricultural Universities of India*, K. C. Naik, Vice Chancellor, Mysore University of Agricultural Sciences, Bangalore, Mysore, India.

   No distribution has been made of this manuscript. It is planned to publish it in India through commercial channels.

9. *Criteria of Progress and Impacts of Technical Assistance Projects in Agriculture*, Harry R. Potter, Department of Sociology, Purdue University, Lafayette, Indiana.

   Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. It is hoped that much of the material will be used in a paper in a professional journal.

10. *The Establishment of Agricultural Universities in India: A Case Study of the Role of U.S.A.I.D.-U.S. University Technical Assistance*, Kathleen M. Propp, Department of Agricultural Economics, University of Illinois, Urbana, Illinois.

    Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. The manuscript is being published by the University of Illinois College of Agriculture as Special Publication #15, October 1968.

11. *A.I.D.-University Rural Development Contracts, 1951-1966*, Kathleen M. Propp, Harold D. Guither, Earl H. Regnier, and William N. Thompson, Department of Agricultural Economics, University of Illinois, Urbana, Illinois.

    Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. No further publication of this manuscript is contemplated; however, it is hoped that supplements may be published annually.

12. *An Analysis of A.I.D.-University Relations, 1950-1965*, John M.

Richardson, Jr., Center for Comparative Political Analysis, Department of Political Science, University of Minnesota, Minneapolis, Minnesota.

Mimeographed copies of this were distributed to a selected list of university and A.I.D. personnel. A revised draft of the manuscript is now in process of publication by Michigan State University Press.

13. *Optimum Role for U.S. Overseas Advisors*, J. A. Rigney, Dean of International Programs, North Carolina State University, Raleigh, North Carolina.

    Mimeographed copies of this report were distributed to a selected list of A.I.D. and university personnel. This manuscript, together with Items 14 and 16, is being published as Technical Bulletin 189 by North Carolina Agricultural Experiment Station.

14. *Role of Technical Personnel in the Technical Assistance-Institution Building Process*, J. A. Rigney, Dean of International Programs, North Carolina State University, Raleigh, North Carolina, and J. K. McDermott, Department of Agricultural Economics, Purdue University, Lafayette, Indiana.

    Mimeographed copies of this report were distributed to a selected list of A.I.D. and university personnel. This manuscript, together with Items 13 and 16, is being published as Technical Bulletin 189 by North Carolina Agricultural Experiment Station.

15. *Pre-Contract Planning*, R. W. Roskelley, Department of Sociology, Utah State University, Logan, Utah.

    Mimeographed copies of this report were distributed to a selected list of university and A.I.D. personnel. It is expected to use much of this material in a paper in a professional journal.

16. *Measuring Institutional Maturity in the Development of Indigenous Agricultural Universities*, R. W. Roskelley, Department of Sociology, Utah State University, Logan, Utah, and J. A. Rigney, Dean of International Programs, North Carolina State University, Raleigh, North Carolina.

    Mimeographed copies of this report were distributed to a selected list of A.I.D. and university personnel. This manuscript, together with Items 13 and 14, is being published as Technical Bulletin 189 by North Carolina Agricultural Experiment Station.

17. *A.I.D.-University Rural Development Contracts and U.S. Universities*, William N. Thompson, Harold D. Guither, Earl H. Regnier, and Kathleen M. Propp, Department of Agricultural Economics, University of Illinois, Urbana, Illinois.

    Mimeographed copies of this report were distributed to a selected list of university and A.I.D. personnel. It is expected that two book-length manuscripts will be developed from this report and other data, to be published by the University of Illinois Press.

18. *Strategies for Technical Assistance*, Philip F. Warnken, Department of Agricultural Economics, University of Missouri, Columbia, Missouri.

    Mimeographed copies of this report have been distributed to a selected group of university and A.I.D. personnel. It is expected that the manuscript will be expanded into a book-length manuscript.

19. *A.I.D., Agriculture, and Africa: A Perspective on University Contract Projects*, William A. Wayt, Department of Agricultural Economics, Ohio State University, Columbus, Ohio.

    Mimeographed copies of this report have been distributed to a selected list of university and A.I.D. personnel. No further publication is now planned.